



# **STIC Search Report**

**EIC 1700**

**STIC Database Tracking Number: 153442**

**TO: Dawn Garrett**  
**Location: REM 10C79**  
**Art Unit : 1774**  
**September 13, 2005**

**Case Serial Number: 10/615775**

**From: Usha Shrestha**  
**Location: EIC 1700**  
**REMSSEN 4B28**  
**Phone: 571/272-3519**  
**usha.shrestha@uspto.gov**

## **Search Notes**

Access DB# 163442

# SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: DAWN GARRETT Examiner #: 76107 Date: 8/22/2005  
Art Unit: 1774 Phone Number 302-1523 Serial Number: 10/615,775  
Mail Box and Bldg/Room Location: Rem 2017 10C79 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*  
Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: DIARYLAMINO GP-CONTG. COPOLYMER, OLED + METH

Inventors (please provide full names):

SHINJI KATU

Earliest Priority Filing Date: 7/10/2003

SCIENTIFIC REFERENCE BR

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent number) along with the appropriate serial number.

AUG 25 RECD

Pat. & T.M. Office

Please search the copolymer formula (1) shown in claim 1.

Please note:  
A prior search was obtained for a species of the co-polymer (see attached searched info). This does not need to be repeated. Since no useable art was in that search, I need to expand the search to other possibilities for the copolymer.

Thank you

## STAFF USE ONLY

\*\*\*\*\*  
Searcher: Wise Type of Search NA Sequence (#) STN 9715.09  
Searcher Phone #: \_\_\_\_\_ AA Sequence (#) Dialog \_\_\_\_\_  
Searcher Location: \_\_\_\_\_ Structure (#) 2 Questel/Orbit \_\_\_\_\_  
Date Searcher Picked Up: \_\_\_\_\_ Bibliographic \_\_\_\_\_ Dr. Link \_\_\_\_\_  
Date Completed: \_\_\_\_\_ Litigation \_\_\_\_\_ Lexis/Nexis \_\_\_\_\_  
Searcher Prep & Review Time: 40 Fulltext \_\_\_\_\_ Sequence Systems \_\_\_\_\_  
Clerical Prep Time: 40 Patent Family \_\_\_\_\_ WWW/Internet \_\_\_\_\_  
Online Time: 75 Other \_\_\_\_\_ Other (specify) \_\_\_\_\_  
\*\*\*\*\*



# STIC Search Report

EIC 1700

STIC Database Tracking Number 159326

TO: Dawn Garrett

Location: 10C79

Art Unit : 1774

July 29, 2005

Case Serial Number: 10/615775

From: Usha Shrestha

Location: EIC 1700

REMSEN 4B28

Phone: 571/272-3519

usha.shrestha@uspto.gov

## Search Notes

*prior search  
for application no.*



*prior search*

Access DB# 159326

## SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: DAWN GARRETT Examiner #: 76107 Date: 7/14/2005  
Art Unit: 1774 Phone Number: 2-1523 Serial Number: 10/615,775  
Mail Box and Bldg/Room Location: \_\_\_\_\_ Results Format Preferred (circle): PAPER DISK E-MAIL  
REMSEN 10C79

If more than one search is submitted, please prioritize searches in order of need.

\*\*\*\*\*  
Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

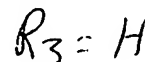
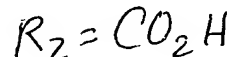
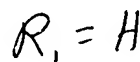
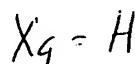
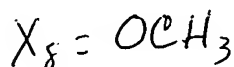
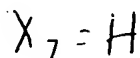
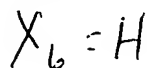
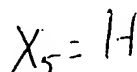
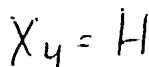
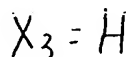
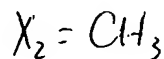
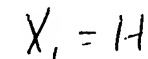
Title of Invention: DIARYLAMINO GP.-CONTG. COPOLYMER OF SEBACIC ACID METH  
SCIENTIFIC REFERENCE BR  
Sci. & Tech. Inf. Ctr.

Inventors (please provide full names): \_\_\_\_\_  
SHINJI KATO JUL 14 REC'D

Earliest Priority Filing Date: 7/10/2003 Pat. & T.M. Office

\*For Sequence Searches Only\* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.

*Please search formula (1) of attached claims  
where A<sub>1</sub> is formula 2 and J is formula (4)*



NOTE:  
If there are not many hits with this specific formula, please broaden search to include additional possibilities for the R groups.

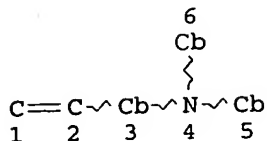
Thank you.



*pair search*

L19 OLED OR LED OR E(W)L OR O(W)E(W)L)  
28 SEA ABB=ON PLU=ON L18 OR L13

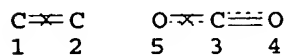
=> d que l12  
L3 STR



NODE ATTRIBUTES:  
DEFAULT MLEVEL IS ATOM  
GGCAT IS MCY UNS AT 3  
GGCAT IS MCY UNS AT 5  
GGCAT IS MCY UNS AT 6  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 6

STEREO ATTRIBUTES: NONE  
L6 SCR 2043  
L8 STR



NODE ATTRIBUTES:  
NSPEC IS RC AT 1  
NSPEC IS RC AT 2  
NSPEC IS RC AT 3  
NSPEC IS RC AT 5  
DEFAULT MLEVEL IS ATOM  
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 5

STEREO ATTRIBUTES: NONE  
L10 297 SEA FILE=REGISTRY SSS FUL L3 AND L8 AND L6  
L12 119 SEA FILE=HCAPLUS ABB=ON PLU=ON L10

=> fil hcap  
FILE 'HCAPLUS' ENTERED AT 16:34:52 ON 28 JUL 2005

=> d l19 1-28 ibib abs hitstr hitind

L19 ANSWER 1 OF 28 HCAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2005:572164 HCAPLUS  
TITLE: Stock solution for production of  
nonlinear-optical materials, nonlinear-optical  
material, and nonlinear-optical device

*pur  
search*

=> fil reg  
FILE 'REGISTRY' ENTERED AT 16:34:29 ON 28 JUL 2005

=> d his ful

(FILE 'HOME' ENTERED AT 15:22:57 ON 28 JUL 2005)

FILE 'HCAPLUS' ENTERED AT 15:23:07 ON 28 JUL 2005

L1 1 SEA ABB=ON PLU=ON US20050008893/PN  
D SCAN  
SEL RN

FILE 'REGISTRY' ENTERED AT 15:23:37 ON 28 JUL 2005

L2 37 SEA ABB=ON PLU=ON (104-94-9/BI OR 106-37-6/BI OR  
108-31-6/BI OR 108-44-1/BI OR 1205-64-7/BI OR 13822-56-  
5/BI OR 204327-05-9/BI OR 207345-05-9/BI OR 2170-03-8/B  
I OR 220716-53-0/BI OR 220716-54-1/BI OR 220716-56-3/BI  
OR 220716-57-4/BI OR 220716-58-5/BI OR 220716-60-9/BI  
OR 220716-62-1/BI OR 220716-63-2/BI OR 227176-02-5/BI  
OR 3052-50-4/BI OR 372-19-0/BI OR 50926-11-9/BI OR  
522632-81-1/BI OR 522632-82-2/BI OR 591-17-3/BI OR  
709044-63-3/BI OR 709044-64-4/BI OR 723339-95-5/BI OR  
723339-96-6/BI OR 7338-27-4/BI OR 741254-67-1/BI OR  
741254-68-2/BI OR 7486-35-3/BI OR 824430-26-4/BI OR  
824430-27-5/BI OR 824430-28-6/BI OR 824430-29-7/BI OR  
92-86-4/BI)  
D SCAN

FILE 'LREGISTRY' ENTERED AT 15:34:30 ON 28 JUL 2005

L3 STR  
L4 STR

FILE 'REGISTRY' ENTERED AT 15:37:43 ON 28 JUL 2005

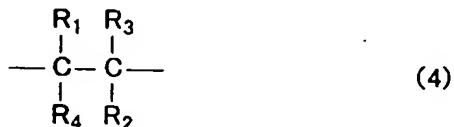
L5 1 SEA SSS SAM L3 AND L4  
D SCAN  
L6 SCR 2043  
L7 5 SEA SSS SAM L3 AND L4 AND L6  
D SCAN  
D QUE STAT L7  
L8 STR L4  
L9 2 SEA SSS SAM L3 AND L8 AND L6  
D SCAN  
D SCAN L7  
D QUE STAT L9  
L10 297 SEA SSS FUL L3 AND L8 AND L6  
L11 11 SEA ABB=ON PLU=ON L10 AND L2  
SAV L10 GAR775/A

FILE 'HCAPLUS' ENTERED AT 16:04:23 ON 28 JUL 2005

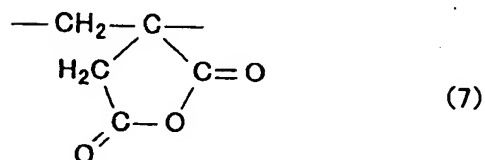
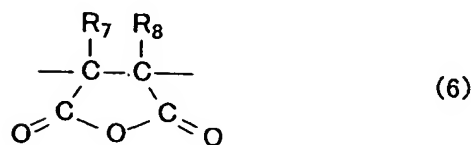
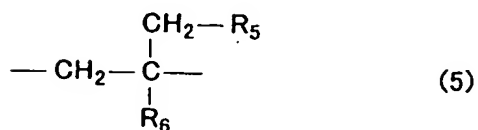
L12 119 SEA ABB=ON PLU=ON L10  
L13 25 SEA ABB=ON PLU=ON L12 AND OPTIC?/SC,SX  
L14 1 SEA ABB=ON PLU=ON L13 AND L1  
L15 36 SEA ABB=ON PLU=ON L12 AND (?LUMINES? OR LUMIN? OR  
LIGHT? OR ?EMIT? OR EL OR OEL OR OLED OR LED OR E(W)L  
OR O(W)E(W)L)  
L16 15 SEA ABB=ON PLU=ON L15 NOT L13  
L17 21 SEA ABB=ON PLU=ON L15 AND OPTIC?/SC,SX  
L18 24 SEA ABB=ON PLU=ON L12 AND (?LUMINES? OR LUMIN? OR  
LIGHT(2A)(EMIT? OR EMISSION) OR ?EMIT? OR EL OR OEL OR

dialkylamino group in which each alkyl group is a C<sub>1</sub> to C<sub>22</sub> alkyl group, a phenyl group, or an N,N-diphenylamino group,

J<sub>1</sub> represents a repeating unit represented by any of the formulas (4) to (7):



5

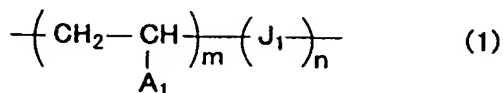


and in the formulas (4) to (7), R<sub>1</sub> to R<sub>6</sub> each independently represents a hydrogen atom, a C<sub>1</sub> to C<sub>4</sub> alkyl group, a carboxyl group, or an alkyloxycarbonyl group in which the alkyl group is a C<sub>1</sub> to C<sub>22</sub> alkyl group, R<sub>7</sub> and R<sub>8</sub> each independently represents a hydrogen atom or a C<sub>1</sub> to C<sub>4</sub> alkyl group, with the proviso that at least two of R<sub>1</sub> to R<sub>4</sub> represent a carboxyl group and at least one of R<sub>5</sub> and R<sub>6</sub> represents a carboxyl group, and

m and n represent positive numbers.

What is claimed is:

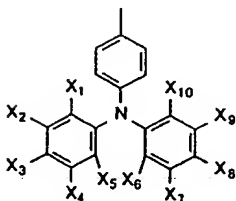
1. A diarylamino group-containing copolymer comprising a molecular chain represented by the formula (1):



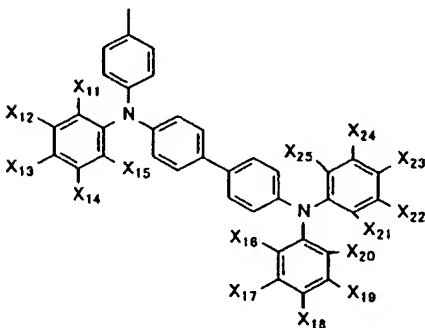
5

and molecular chain terminals which are each independently a radical polymerization initiator residue or a hydrogen atom, the copolymer having a degree of polymerization of 3 to 500, wherein, in the formula (1),

- 10  $\text{A}_1$  represents a group represented by the formula (2) or (3):



(2)



(3)

- and in the formulas (2) and (3),  $\text{X}_1$  to  $\text{X}_{25}$  each independently represents a hydrogen atom, a halogen atom, a  $\text{C}_1$  to  $\text{C}_{22}$  alkyl group, a  $\text{C}_1$  to  $\text{C}_{22}$  alkylthio group, a  $\text{C}_1$  to  $\text{C}_{22}$  alkoxy group which may be substituted with a halogen atom, an N,N-
- 15

=> fil reg  
FILE 'REGISTRY' ENTERED AT 18:07:11 ON 12 SEP 2005

=> d his ful

FILE 'REGISTRY' ENTERED AT 17:51:27 ON 12 SEP 2005

L1 STR  
L2 STR  
L3 SCR 2043  
L4 305 SEA SSS FUL L1 AND L2 AND L3  
L5 STR  
L6 10 SEA SUB=L4 SSS SAM L5  
L7 292 SEA SUB=L4 SSS FUL L5  
SAV L7 GAR775A/A

FILE 'HCAPLUS' ENTERED AT 17:54:48 ON 12 SEP 2005

L8 115 SEA ABB=ON PLU=ON L7  
L9 20 SEA ABB=ON PLU=ON L8 AND OPTIC?/SC,SX  
L10 32 SEA ABB=ON PLU=ON L8 AND (?LUMINES? OR LUMIN? OR  
LIGHT? OR ?EMIT? OR EL OR OEL OR OLED OR LED OR E(W)L  
OR O(W)E(W)L)  
L11 20 SEA ABB=ON PLU=ON L8 AND (?LUMINES? OR LUMIN? OR  
LIGHT(2A) (EMIT? OR EMISSION) OR ?EMIT? OR EL OR OEL OR  
OLED OR LED OR E(W)L OR O(W)E(W)L)  
L12 23 SEA ABB=ON PLU=ON L11 OR L9  
L13 92 SEA ABB=ON PLU=ON L8 NOT L12  
D FHITSTR  
L14 89 SEA ABB=ON PLU=ON L13 AND P/DT  
L15 3 SEA ABB=ON PLU=ON L13 NOT L14  
L16 76 SEA ABB=ON PLU=ON L14 AND (1907-2002)/PRY,AY  
L17 2 SEA ABB=ON PLU=ON L15 AND 2003-2005/PY  
L18 78 SEA ABB=ON PLU=ON L16 OR L17

=> d que l18

L1 STR

6  
Cb  
}

C=C~Cb~N~Cb  
1 2 3 4 5

#### NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM  
GGCAT IS MCY UNS AT 3  
GGCAT IS MCY UNS AT 5  
GGCAT IS MCY UNS AT 6  
DEFAULT ECLEVEL IS LIMITED

#### GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 6

#### STEREO ATTRIBUTES: NONE

L2 STR



## NODE ATTRIBUTES:

NSPEC IS RC AT 1  
 NSPEC IS RC AT 2  
 NSPEC IS RC AT 3  
 NSPEC IS RC AT 4  
 DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 5

## STEREO ATTRIBUTES: NONE

L3 SCR 2043  
 L4 305 SEA FILE=REGISTRY SSS FUL L1 AND L2 AND L3  
 L5 STR



## NODE ATTRIBUTES:

DEFAULT MLEVEL IS ATOM  
 DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED  
 NUMBER OF NODES IS 5

## STEREO ATTRIBUTES: NONE

L7 292 SEA FILE=REGISTRY SUB=L4 SSS FUL L5  
 L8 115 SEA FILE=HCAPLUS ABB=ON PLU=ON L7  
 L9 20 SEA FILE=HCAPLUS ABB=ON PLU=ON L8 AND OPTIC?/SC,SX  
 L11 20 SEA FILE=HCAPLUS ABB=ON PLU=ON L8 AND (?LUMINES? OR  
 LUMIN? OR LIGHT(2A) (EMIT? OR EMISSION) OR ?EMIT? OR EL  
 OR OEL OR OLED OR LED OR E(W)L OR O(W)E(W)L)  
 L12 23 SEA FILE=HCAPLUS ABB=ON PLU=ON L11 OR L9  
 L13 92 SEA FILE=HCAPLUS ABB=ON PLU=ON L8 NOT L12  
 L14 89 SEA FILE=HCAPLUS ABB=ON PLU=ON L13 AND P/DT  
 L15 3 SEA FILE=HCAPLUS ABB=ON PLU=ON L13 NOT L14  
 L16 76 SEA FILE=HCAPLUS ABB=ON PLU=ON L14 AND (1907-2002)/PR  
 Y,AY  
 L17 2 SEA FILE=HCAPLUS ABB=ON PLU=ON L15 AND 2003-2005/PY  
 L18 78 SEA FILE=HCAPLUS ABB=ON PLU=ON L16 OR L17

=> fil hcap

FILE 'HCAPLUS' ENTERED AT 18:07:37 ON 12 SEP 2005

=> => d l18 1-78 ibib abs fhitr hitind

L18 ANSWER 1 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:907186 HCAPLUS

DOCUMENT NUMBER: 142:74916

TITLE: Nanostructures of n-Type Organic Semiconductor

in a p-Type Matrix via Self-Assembly of Block Copolymers

AUTHOR(S): Lindner, Stefan M.; Thelakkat, Mukundan  
 CORPORATE SOURCE: Makromolekulare Chemie I, Universitaet Bayreuth, Bayreuth, 95440, Germany  
 SOURCE: Macromolecules (2004), 37(24), 8832-8835 X  
 CODEN: MAMOBX; ISSN: 0024-9297  
 PUBLISHER: American Chemical Society  
 DOCUMENT TYPE: Journal  
 LANGUAGE: English

AB The block copolymn. of 4-vinyltriphenylamine and a perylenebisimide acrylate could be achieved by nitroxide-mediated living radical polymerization with control of mol. weight and low PDI. These fully functionalized block copolymers consist of one block with a hole transport moiety and a second block with an electron transport moiety having light absorption properties. In films these polymers show phase separation on a nanometer scale, and with increasing amts. of dye they build up nanostructures of perylenebisimide in a PvTPA matrix over a large area. Initial expts. show that charge transfer between the domains occurs, which is essential for the use in photovoltaic devices. The formation of oriented nanowires of an n-type organic semiconductor in a polymer matrix opens up new concepts not only in the field of existing electrooptics but also in nanoscience and mol. electronics.

IT 813413-35-3P

(nanostructures of n-type organic semiconductor in a p-type matrix via self-assembly of block copolymers)

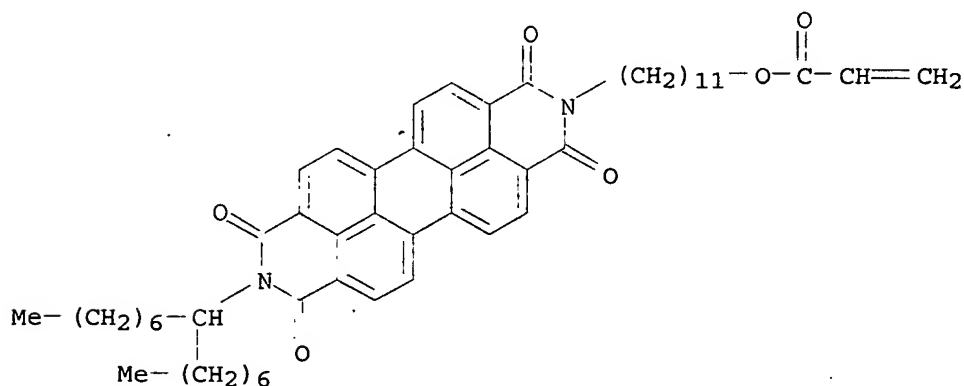
RN 813413-35-3 HCAPLUS

CN 2-Propenoic acid, 11-[9-(1-heptyloctyl)-3,8,9,10-tetrahydro-1,3,8,10-tetraoxoanthra[2,1,9-def:6,5,10-d'e'f']diisoquinolin-2(1H)-yl]undecyl ester, polymer with 4-ethenyl-N,N-diphenylbenzenamine, diblock (9CI) (CA INDEX NAME)

CM 1

CRN 813413-34-2

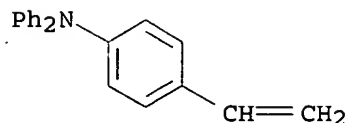
CMF C53 H64 N2 O6



CM 2

CRN 25069-74-3

CMF C20 H17 N



CC 35-4 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 76

IT 813413-35-3P 813413-36-4P

(nanostructures of n-type organic semiconductor in a p-type matrix via self-assembly of block copolymers)

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS AVAILABLE  
IN THE RE FORMAT

L18 ANSWER 2 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:569075 HCAPLUS

DOCUMENT NUMBER: 141:114030

TITLE: Electrophotographic photoreceptor, its  
manufacture, apparatus, and process cartridge  
INVENTOR(S): Amanomiya, Shoji; Kikuchi, Norihiro; Maruyama,  
Akio; Uematsu, Hironori

PATENT ASSIGNEE(S): Canon Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 2004198578	A2	20040715	JP 2002-364835	2002 1217

PRIORITY APPLN. INFO.:

<--  
JP 2002-364835

2002  
1217

AB The photoreceptor has a photosensitive layer on an elec.  
conducting support, whose surface layer containing a compound with  
≥1 chain polymerization functional group is formed by irradiated  
with electron beam at electron beam absorption rate  $1.0 + 103$  to  $2.0 + 107$  Gy/s. The apparatus involves the obtained  
photoreceptor. The process cartridge removably incorporated in  
the apparatus, involves the obtained photoreceptor and ≥1 of  
charging, developing, and cleaning devices. The photoreceptor  
shows high layer strength, reduced residual potential, and  
improved precipitation resistance, charge potential stability, and  
abrasion resistance.

IT 268223-45-6P

(electrophotog. photoreceptor with surface layer containing compound chain polymerizable by electron beam irradiation)

RN 268223-45-6 HCAPLUS

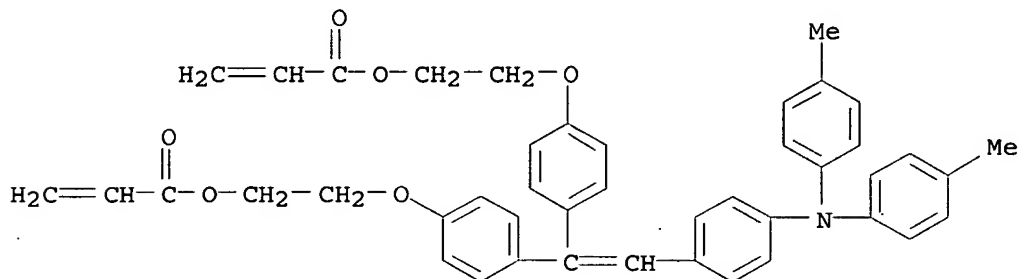


CN 2-Propenoic acid, [[4-[bis(4-methylphenyl)amino]phenyl]ethenyliden  
e]bis(4,1-phenyleneoxy-2,1-ethanedyl) ester, homopolymer (9CI)  
(CA INDEX NAME)

CM 1

CRN 268223-44-5

CMF C44 H41 N O6



IC ICM G03G005-147

ICS G03G005-06; G03G005-07

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and  
Other Reprographic Processes)

Section cross-reference(s): 38

IT 36446-02-3P 268223-45-6P 346619-53-2P 720665-59-8P

720665-61-2P 720665-62-3P

(electrophotog. photoreceptor with surface layer containing compound  
chain polymerizable by electron beam irradiation)

L18 ANSWER 3 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:569074 HCAPLUS

DOCUMENT NUMBER: 141:114029

TITLE: Electrophotographic photoreceptor, its  
manufacture, apparatus, and process cartridge

INVENTOR(S): Maruyama, Akio; Uematsu, Hironori; Kikuchi,  
Norihiro; Amanomiya, Shoji; Daichi, Atsushi

PATENT ASSIGNEE(S): Canon Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 22 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004198576	A2	20040715	JP 2002-364830	2002 1217

PRIORITY APPLN. INFO.:

JP 2002-364830

2002  
1217

AB The photoreceptor has a photosensitive layer on an elec.  
conducting cylindrical support, of which surface layer is formed

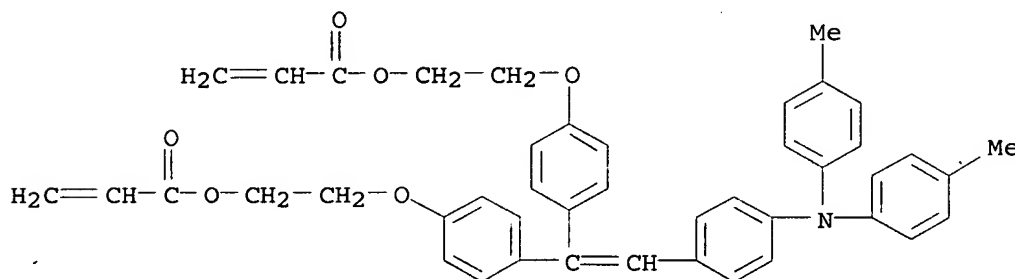
```

IT      268223-45-6P
        (electrophotog. photoreceptor with surface layer containing resin
        cured by irradiation)
RN      268223-45-6 HCAPLUS
CN      2-Propenoic acid, [[4-[bis(4-methylphenyl)amino]phenyl]ethenyliden
        e]bis(4,1-phenyleneoxy-2,1-ethanediyl) ester, homopolymer (9CI)
        (CA INDEX NAME)

CM      1

CRN     268223-44-5
CMF     C44 H41 N O6

```



IC ICM G03G005-147  
ICS G03G005-06; G03G005-07

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and  
Other Reprographic Processes)  
Section cross-reference(s): 38

IT 53814-24-7P **268223-45-6P** 269402-83-7P 346619-53-2P  
720665-62-3P 720708-64-5P 720708-66-7P 720708-67-8P  
720708-69-0P 720709-18-2P  
(electrophotog. photoreceptor with surface layer containing resin  
cured by irradiation)

USHA SHRESTHA EIC 1700 REM 4B28

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004198568	A2	20040715	JP 2002-364670	2002 1217

## PRIORITY APPLN. INFO.:

<--  
JP 2002-364670

2002  
1217

AB The photoreceptor has a photosensitive layer on an elec. conducting cylindrical support, of which surface layer is formed by irradiation of the layer containing a compound curable by polymerization or crosslinking when exposed to radiation. It is manufactured by rotating the cylindrical support at its axis on irradiation. The apparatus involves the obtained photoreceptor. The process cartridge removably incorporated in the apparatus, involves the obtained photoreceptor and  $\geq 1$  of charging, developing, and cleaning devices. The photoreceptor shows improved precipitation resistance, anti-cracking, and abrasion resistance.

IT 268223-45-6P

(electrophotog. photoreceptor with surface layer containing polymer cured by irradiation)

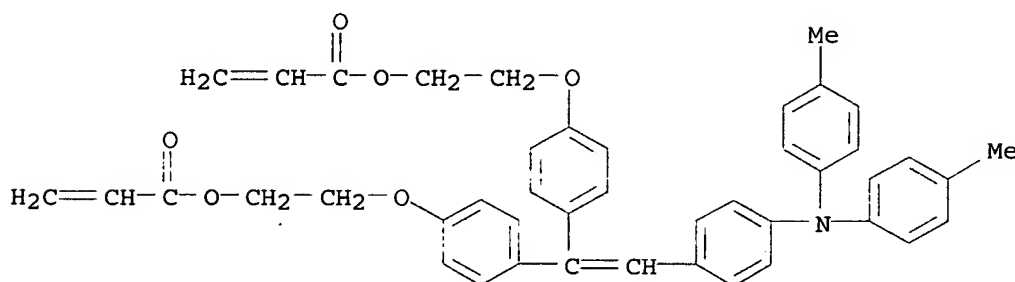
RN 268223-45-6 HCAPLUS

CN 2-Propenoic acid, [[4-[bis(4-methylphenyl)amino]phenyl]ethenylidene]bis(4,1-phenyleneoxy-2,1-ethanediyl) ester, homopolymer (9CI)  
(CA INDEX NAME)

CM 1

CRN 268223-44-5

CMF C44 H41 N O6



IC ICM G03G005-147

ICS G03G005-06; G03G005-07

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

IT 36446-02-3P 268223-45-6P 344449-41-8P 395084-59-0P

720665-62-3P 720712-39-0P 720712-41-4P 720712-43-6P

(electrophotog. photoreceptor with surface layer containing polymer cured by irradiation)

L18 ANSWER 5 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:250283 HCAPLUS  
 DOCUMENT NUMBER: 140:294708  
 TITLE: Electrophotographic photoreceptor and its use  
 in process cartridge and electrophotographic  
 apparatus  
 INVENTOR(S): Nakajima, Yuka; Tanaka, Takakazu; Ogaki,  
 Harunobu; Kawahara, Masataka; Takatani, Itaru  
 PATENT ASSIGNEE(S): Canon Inc., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 39 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004093793	A2	20040325	JP 2002-253612	2002 0830

PRIORITY APPLN. INFO.:

JP 2002-253612

2002  
0830

AB The photoreceptor has a photosensitive layer on a support, wherein  
 the surface layer of the photoreceptor contains polymers of  
 charge-transporting materials having polymerizable groups  
 R11X11R12Y11 [R11, R12 = alkylene optionally having ether linkage,  
 cycloalkylene, arylene; X11 = O2CCR21:CR22CO2; R21, R22 = H,  
 hydrocarbyl; Y11 = O(CH2)pCH:CHR31; R31 = H, Me; p = 0, 1; when p  
 = 0, R31 = Me]. The photoreceptor shows high sensitivity and  
 durability and low residual potential and gives stable image in  
 repeated use.

IT 676130-13-5

(electrophotog. photoreceptor having charge-transporting  
 material polymer-containing surface for process cartridge and  
 electrophotog. apparatus)

RN 676130-13-5 HCAPLUS

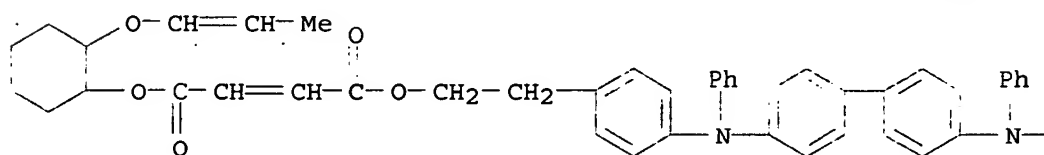
CN 2-Butenedioic acid, [1,1'-biphenyl]-4,4'-diylbis[(phenylimino)-4,1-  
 phenylene-2,1-ethanediyl] bis[2-(1-propenyloxy)cyclohexyl] ester,  
 polymer with N,N'-bis(4-ethenylphenyl)-N,N'-diphenyl[1,1'-  
 biphenyl]-4,4'-diamine (9CI) (CA INDEX NAME)

CM 1

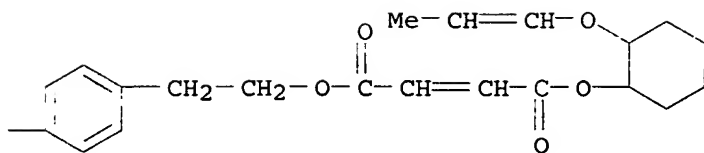
CRN 676130-11-3

CMF C66 H68 N2 O10

PAGE 1-A



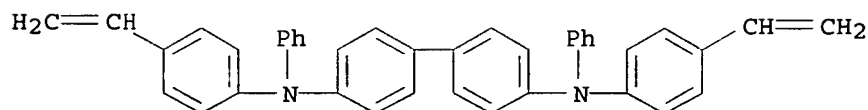
PAGE 1-B



CM 2

CRN 241476-68-6

CMF C40 H32 N2



IC ICM G03G005-147

ICS G03G005-05; G03G005-06; G03G005-07

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

IT 676130-09-9 676130-10-2 676130-11-3 676130-12-4  
 676130-13-5 676130-15-7 676130-17-9  
 676130-18-0 676130-19-1 676130-20-4  
 676130-22-6 676130-25-9 676130-26-0 676130-27-1  
 676130-29-3 676130-30-6 676130-32-8 676130-33-9  
 676130-34-0 676130-35-1 676130-36-2 676130-38-4  
 676130-40-8 676130-42-0 676130-44-2 676130-44-2  
 676130-46-4 676130-47-5 676130-49-7 676130-50-0  
 678160-27-5 678160-30-0 678160-56-0 678171-29-4  
 678183-40-9 679436-68-1 679436-69-2 679436-70-5

(electrophotog. photoreceptor having charge-transporting material polymer-containing surface for process cartridge and electrophotog. apparatus)

L18 ANSWER 6 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:853330 HCAPLUS

DOCUMENT NUMBER: 139:356020

TITLE: Electrophotographic photoreceptor in process  
 cartridge of electrophotographic image-forming  
 apparatus

INVENTOR(S): Tamura, Hiroshi

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 25 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
-----				

JP 2003307860

A2

20031031

JP 2002-115290

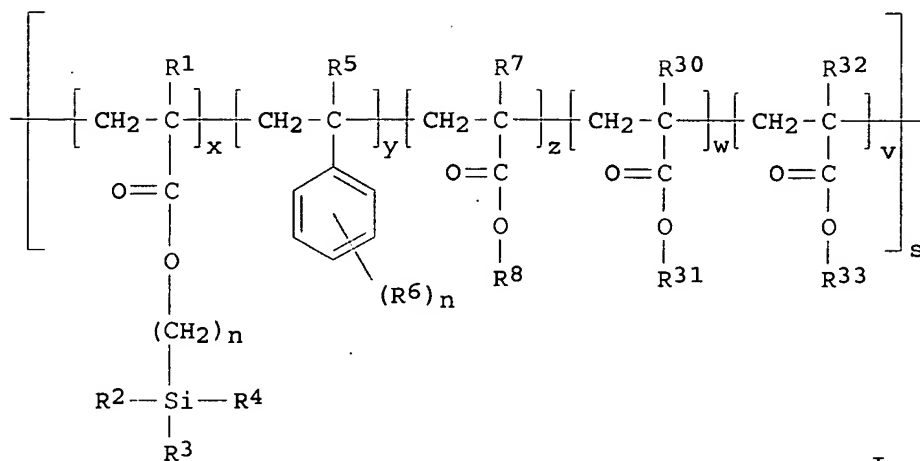
2002  
0417

PRIORITY APPLN. INFO.:

JP 2002-115290

2002  
0417

GI



I

AB The title photoreceptor has light-sensitive layers containing a binder resin on an electroconductive support, wherein the binder resin has repeating unit I (R1,5,7,30,35 = H, methyl; R2-4 = C1-4 alkyl, alkoxy; R9 = C1-4 alkyl, aryl; R31 = H, C1-4 alkyl, aryl; R33 = alkyl substituted with polysiloxane group; n = 1-4 integer; m = 1-5 integer; 0.1 ≤ X ≤ 0.7, 0.2 ≤ Y ≤ 0.8, 0 ≤ Z ≤ 0.5, 0 ≤ W ≤ 0.5, 0 ≤ V ≤ 0.5, X+Y+Z+W+V = 1,; 10 ≤ s ≤ 1,000). The photoreceptor shows the high hardness on the surface and provides good image quality for long time.

IT 618904-11-3P

(binder resin of electrophotog. photoreceptor)

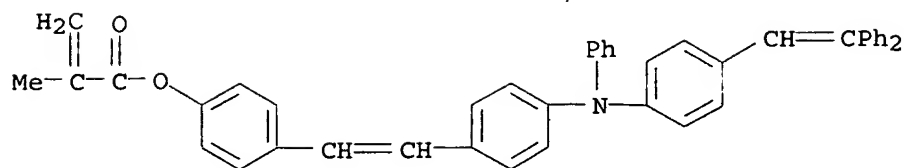
RN 618904-11-3 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 4-[2-[4-[[4-(2,2-diphenylethenyl)phenyl]phenylamino]phenyl]ethenyl]phenyl ester, polymer with 3-(trimethoxysilyl)propyl 2-methyl-2-propenoate (9CI)  
(CA INDEX NAME)

CM 1

CRN 252259-11-3

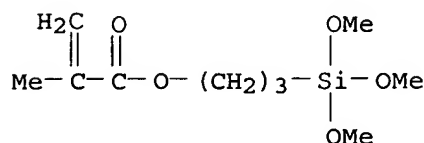
CMF C44 H35 N 02



CM 2

CRN 2530-85-0

CMF C10 H20 O5 Si



IC ICM G03G005-05  
ICS C08F212-04; C08F220-10; C08F220-34; C08K005-541; C08L025-14;  
C08L033-08

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and  
Other Reprographic Processes)  
Section cross-reference(s): 35

IT 25214-29-3P, LS 3380-styrene-butyl methacrylate copolymer  
25214-32-8P, LS 3380-styrene-methyl methacrylate copolymer  
26949-20-2P, LS 3380-styrene copolymer 112652-05-8P, LS  
3375-styrene copolymer 618904-04-4P 618904-05-5P  
618904-06-6P, LS 3380-styrene-phenyl methacrylate copolymer  
618904-07-7P, LS 3380-styrene-2-hydroxyethyl methacrylate-X  
22-174DX copolymer 618904-08-8P, LS 3380-styrene-2-hydroxyethyl  
methacrylate-methyl methacrylate-X 22-174DX copolymer  
618904-09-9P 618904-10-2P 618904-11-3P  
618904-12-4P 618904-13-5P 618904-15-7P  
618904-16-8P 618904-17-9P 618904-18-0P  
618904-19-1P 618904-20-4P

(binder resin of electrophotog. photoreceptor)

L18 ANSWER 7 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:736689 HCAPLUS

DOCUMENT NUMBER: 140:50203

TITLE: Novel sol-gel materials with charge  
transporting properties

AUTHOR(S): Jin, Xin; Weiss, David S.; Sorriero, Louis J.;  
Ferrar, Wayne T.

CORPORATE SOURCE: Heidelberg Digital L.L.C., Rochester, NY, USA

SOURCE: Journal of Imaging Science and Technology (  
2003), 47(4), 361-365

CODEN: JIMTE6; ISSN: 1062-3701

PUBLISHER: Society for Imaging Science and Technology

DOCUMENT TYPE: Journal

LANGUAGE: English

AB A series of novel copolymers having components with hole transport  
ability and silane functionality have been synthesized. These  
copolymers were prepared by radical polymerization Through a sol-gel

process with methyltrimethoxysilane, solns. of the copolymers were coated to form the hole transport layer of an organic photoreceptor. These hole transport active silsesquioxane layers were coated as either a charge transport layer (CTL) on a charge generation layer (CGL) or a protective overcoat on a CTL. The electrophotog. and scratch resistant properties of the photoreceptors prepared with these sol-gel layers are described.

IT 636588-67-5P

(electrophotog. and mech. properties of sol-gel copolymers containing charge transport- and silane monomers for applications as either charge-transport layer or as protective overcoat for photoreceptors)

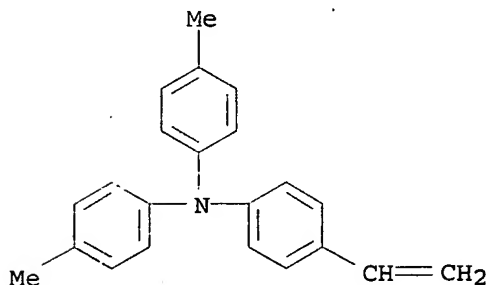
RN 636588-67-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-(trimethoxysilyl)propyl ester, polymer with 4-ethenyl-N,N-bis(4-methylphenyl)benzenamine and trimethoxymethylsilane (9CI) (CA INDEX NAME)

CM 1

CRN 74065-48-8

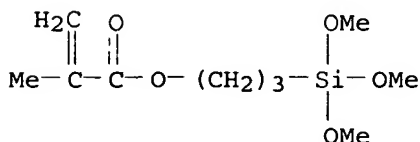
CMF C22 H21 N



CM 2

CRN 2530-85-0

CMF C10 H20 O5 Si

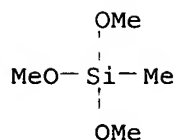


CM 3

CRN 1185-55-3

CMF C4 H12 O3 Si





CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 636588-67-5P

(electrophotog. and mech. properties of sol-gel copolymers containing charge transport- and silane monomers for applications as either charge-transport layer or as protective overcoat for photoreceptors)

IT 636588-66-4P

(preparation and characterization of polymers containing both silane and charge-transport groups for electrophotog. applications)

REFERENCE COUNT: 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L18 ANSWER 8 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:525890 HCAPLUS

DOCUMENT NUMBER: 139:108628

TITLE: Electrophotographic imaging apparatus showing stable performance to achieve high quality image

INVENTOR(S): Yasutomi, Hiroshi; Suzuki, Yasuo

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 47 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 2003195535	A2	20030709	JP 2001-397139	

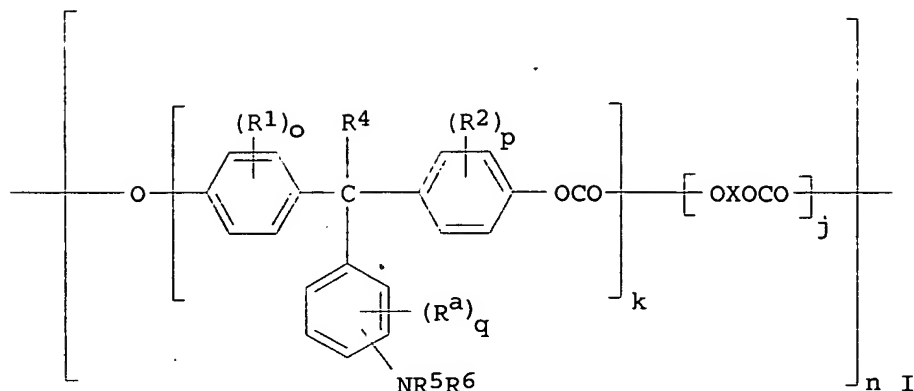
2001  
1227

PRIORITY APPLN. INFO.:

<--  
JP 2001-397139

2001  
1227

GI



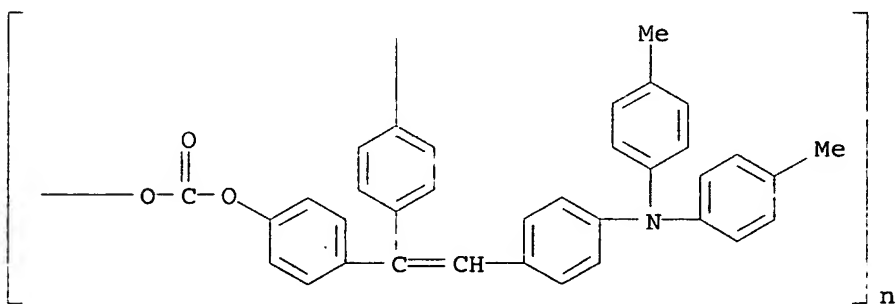
AB The invention relates to an electrophotog. imaging apparatus comprising at least a photoconductor, a charging means, and a laser device (1200 dpi resolution and  $\leq 35 \mu\text{m}$  laser beam diameter) to form an electrostatic latent image, wherein the charge transport layer of the photoconductor contains a triarylamine polymeric charge transport material represented by I (R1-3 = alkyl, halo; R4 = H, alkyl; R5, R6 = aryl; o, p, q = 0-4; k = 0.1-1.0; j = 0-0.9; n = 5-5000; X = divalent aliphatic, divalent cycloaliph., etc.) and shows a carrier mobility of  $\geq 1 \times 10^{-5} \text{ cm}^2 \cdot \text{V}^{-1} \cdot \text{s}^{-1}$  under an elec. field of  $3 \times 10^5 \text{ V} \cdot \text{cm}^{-1}$ . The photoconductor shows excellent durability.

IT 198983-20-9

(polymeric charge transport material in photoconductor of electrophotog. imaging apparatus showing stable performance to achieve high quality image)

RN 198983-20-9 HCAPLUS

CN Poly[oxycarbonyloxy-1,4-phenylene[[4-[bis(4-methylphenyl)amino]phenyl]ethenylidene]-1,4-phenylene] (9CI) (CA INDEX NAME)



IC ICM G03G005-047

ICS G03G005-07; G03G015-04

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 198983-20-9 200423-28-5 200423-68-3 200863-53-2  
 200950-21-6 200950-24-9 200950-30-7 200950-71-6  
 201136-22-3 201148-52-9 201337-55-5 201423-33-8  
 557104-41-3

(polymeric charge transport material in photoconductor of electrophotog. imaging apparatus showing stable performance to achieve high quality image)

L18 ANSWER 9 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2003:452148 HCAPLUS  
 DOCUMENT NUMBER: 139:44185  
 TITLE: Monolayer electrophotographic photoreceptor, electrophotographic method, apparatus, and process cartridge  
 INVENTOR(S): Komai, Yuko; Shoji, Masayuki  
 PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 101 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 7  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003167365	A2	20030613	JP 2002-237791	2002 0819
PRIORITY APPLN. INFO.:				2001 0918
OTHER SOURCE(S):				2001 0918

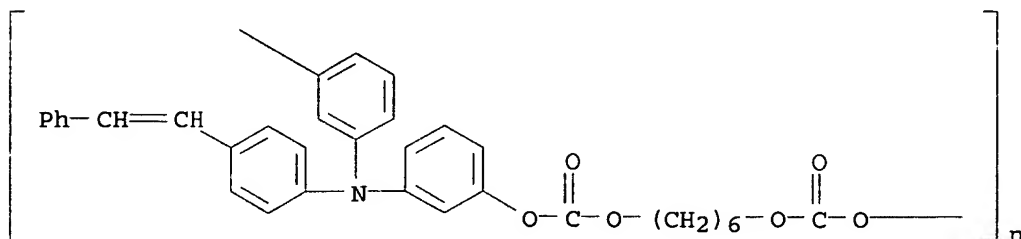
GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT  
 \*

AB The photoreceptor comprises an elec. conductive support with an optional intermediate layer and monolayer photosensitive layer containing an azo compound  $\text{Ar}(\text{N}:\text{NCp})_n$  [Ar = (un)saturated aromatic hydrocarbyl or aromatic heterocycle which may have a linkage; Cp = coupler, n = 1-4;  $\geq 1$  of the coupler is selected from Q1-3; R51-56 = H, alkyl, alkoxy, halo, amino, hydroxy, nitro, cyano, X51 = H, alkyl, aromatic hydrocarbyl, heterocycle, amino, (these may be substituted); Y51 = alkylene, divalent arom organic group, divalent group with aromatic heterocycle, COZ; Z = divalent alkylene, divalent group with arom organic group, divalent group with aromatic heterocycle] as a charge-generating agent and a polymer charge-transporting agent. The apparatus comprises the photoreceptor, and charging, image-wise exposing, developing, and transferring means. A detachable process cartridge comprising the photoreceptor and  $\geq 1$  of the means is also claimed. The photoreceptor shows good charging property, sensitivity, lightfastness, and durability in repeated copying.

IT 192566-52-2  
 (charge-transporting agent; monolayer electrophotog. photoreceptor using azo compound charge-generating agent and polymer charge-transporting agent)

RN 192566-52-2 HCAPLUS  
 CN Poly[oxy carbonyloxy-1,6-hexanediyl oxy carbonyloxy-1,3-phenylene[[4-(2-phenylethenyl)phenyl]imino]-1,3-phenylene] (9CI) (CA INDEX NAME)



IC ICM G03G005-06  
 ICS C08G064-12; G03G005-05; G03G005-07; G03G005-14  
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 IT 160380-07-4 182306-13-4 192566-52-2  
 195872-69-6 195974-66-4 200423-52-5  
 200863-48-5 201135-07-1 201148-63-2 454704-06-4  
 477565-76-7 540510-62-1 540510-63-2 540510-64-3  
 540510-65-4 540510-66-5 540510-67-6  
 (charge-transporting agent; monolayer electrophotog. photoreceptor using azo compound charge-generating agent and polymer charge-transporting agent)

L18 ANSWER 10 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2002:709229 HCAPLUS  
 DOCUMENT NUMBER: 137:255273  
 TITLE: Electrophotographic photoreceptor containing charge-transfer vinyl polymer and filler and process cartridge using the same  
 INVENTOR(S): Tamura, Hiroshi  
 PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002268258	A2	20020918	JP 2001-68721	2001 0312

PRIORITY APPLN. INFO.: JP 2001-68721  
 2001 0312

AB The electrophotog. photoreceptor contains a charge-transfer vinyl polymer and a filler in  $\geq 1$  layer which is formed farthest away from an elec. conductive support. The layer contains a copolymer of (a) (meth)acrylic compound represented by

$H_2C=CR_1COOAr_1XAr_2NAr_3Ar_4$  or  $H_2C=CR_1COOAr_2NAr_3Ar_4$  ( $R_1 = H, Me$ ;  $Ar_{1,2} = \text{arylene}$ ;  $Ar_{3,4} = \text{aryl}$ ; and  $X = \text{single bond, alkylene, etc.}$ ) having a triarylamine structure and (b) a methacrylic polysiloxane compound  $H_2C=R_2COO(CH_2)_l(O)_j(SiR_3R_4O)_mSiR_5R_6R_7$  ( $R_2 = H, Me$ ;  $R_{3-7} = \text{alkyl, Ph}$ ;  $l = \text{integer } 0-6$ ;  $j = 0, 1$ ; and  $m = \text{integer } 5-1,000$ ) terminated by an acrylic group on one end, and an inorg. or organic filler. The inorg. filler includes titania, silica, and alumina. The organic filler includes a polyfunctional crosslinked vinyl or condensation polymer. The process cartridge using the electrophotog. photoreceptor is also claimed.

IT 460740-87-8P

(electrophotog. photoreceptor containing charge-transfer vinyl polymer and filler)

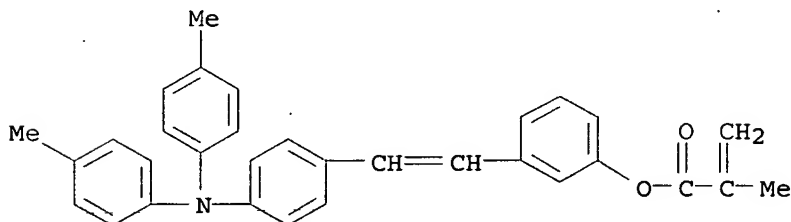
RN 460740-87-8 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 3-[2-[4-[bis(4-methylphenyl)amino]phenyl]ethenyl]phenyl ester, polymer with  $\alpha$ -[dimethyl[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]silyl]- $\omega$ -[(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)] and methyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 252259-09-9

CMF C32 H29 N O2

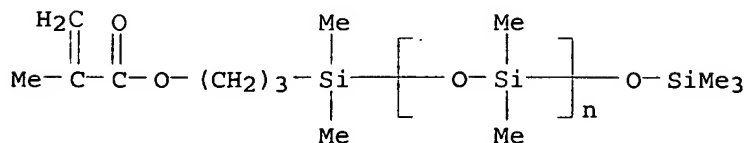


CM 2

CRN 123109-42-2

CMF (C2 H6 O Si) $_n$  C12 H26 O3 Si2

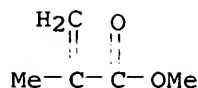
CCI PMS



CM 3

CRN 80-62-6

CMF C5 H8 O2



IC ICM G03G005-147  
 ICS G03G005-147; G03G005-043; G03G005-05; G03G005-07  
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and  
 Other Reprographic Processes)  
 Section cross-reference(s): 35, 38  
 IT 97-63-2P 163767-10-0DP, polymer with acrylic polysiloxane derivative  
 445041-50-9DP, polymer with acrylic polysiloxane derivative  
 460740-82-3P 460740-85-6P 460740-87-8P  
 460740-89-0P 460740-93-6P  
 (electrophotog. photoreceptor containing charge-transfer vinyl  
 polymer and filler)

L18 ANSWER 11 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2002:592343 HCAPLUS  
 DOCUMENT NUMBER: 137:147735  
 TITLE: Electrophotographic photoreceptor in process  
 cartridge for electrophotographic  
 image-forming apparatus  
 INVENTOR(S): Tamura, Hiroshi; Yamashita, Hiroshi  
 PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2002221810	A2	20020809	JP 2001-17455	2001 0125

PRIORITY APPLN. INFO.: <--  
 JP 2001-17455  
 2001  
 0125

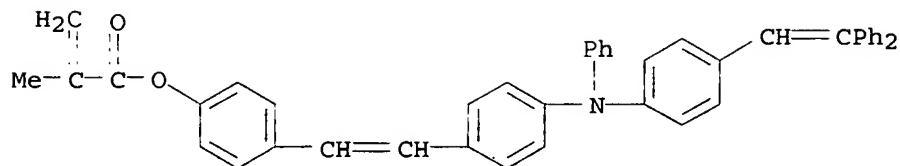
AB The title photoreceptor has light-sensitive layers on an  
 electroconductive support, wherein the light-sensitive layer  
 contains a copolymer prepared from CH<sub>2</sub>=C(R<sub>1</sub>)-COO-Ar<sub>1</sub>-X-Ar<sub>2</sub>-  
 N(Ar<sub>3</sub>)(Ar<sub>4</sub>) or CH<sub>2</sub>=C(R<sub>1</sub>)-COO-Ar<sub>2</sub>-N(Ar<sub>3</sub>)(Ar<sub>4</sub>) and  
 CH<sub>2</sub>=C(R<sub>1</sub>)-Y-(R<sub>1</sub>)C=CH<sub>2</sub> ( R<sub>1</sub> = H, methyl; Ar<sub>1</sub>-2 = arylene; Ar<sub>3</sub>-4 =  
 aryl; X = single bond, alkylene, cycloalkylene, etc.; Y = arylene,  
 alkylene, alkylene ether, etc.). The photoreceptor shows the  
 improved wearing resistance and the long service-life.

IT 445041-41-8P  
 (copolymer in light-sensitive layers of electrophotog.  
 photoreceptor)

RN 445041-41-8 HCAPLUS  
 CN 2-Propenoic acid, 2-methyl-, 1,2-ethanediyl ester, polymer with  
 4-[2-[4-[[4-(2,2-diphenylethenyl)phenyl]phenylamino]phenyl]ethenyl  
 ]phenyl 2-methyl-2-propenoate and methyl 2-methyl-2-propenoate  
 (9CI) (CA INDEX NAME)

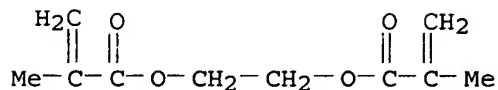
CM 1

CRN 252259-11-3  
 CMF C44 H35 N O2



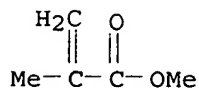
CM 2

CRN 97-90-5  
 CMF C10 H14 O4



CM 3

CRN 80-62-6  
 CMF C5 H8 O2



IC ICM G03G005-07  
 ICS C08F220-34; C08F220-38; G03G005-05; C08F212-36; C08F290-06  
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and  
 Other Reprographic Processes)  
 Section cross-reference(s): 35  
 IT 445041-40-7P 445041-41-8P 445041-43-0P  
 445041-45-2P 445041-46-3P 445041-48-5P 445041-51-0P  
 445041-54-3P  
 (copolymer in light-sensitive layers of electrophotog.  
 photoreceptor)

L18 ANSWER 12 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:864942 HCAPLUS

DOCUMENT NUMBER: 136:12783

TITLE: Organic electrophotographic photoreceptor  
 containing polymer charge-transporting agentINVENTOR(S): Kami, Hidetoshi; Tamura, Hiroshi; Suzuki,  
 Tetsuro; Ota, Shoichi

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 30 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001330973	A2	20011130	JP 2000-146922	2000 0518

PRIORITY APPLN. INFO.: JP 2000-146922  
 2000  
 0518

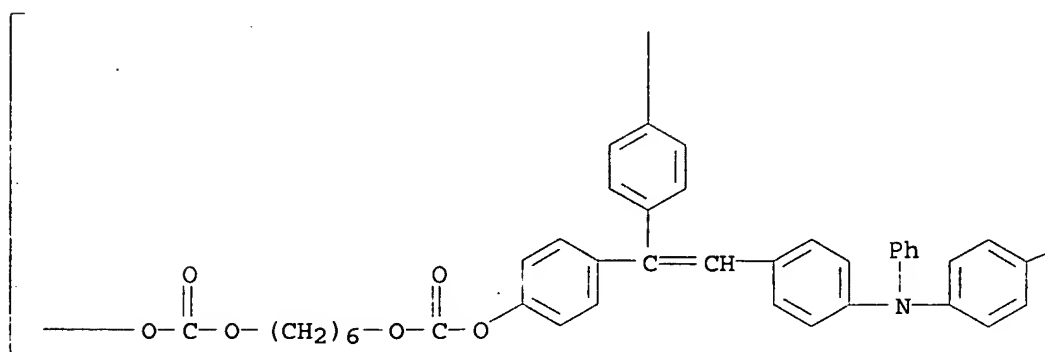
AB The photoreceptor is equipped with a photosensitive layer having the product of tensile breaking elongation ( $\epsilon$ ; %) and tensile breaking strength ( $\sigma$ ; kg·mm<sup>2</sup>)  $\epsilon \cdot \sigma \geq 0.85$  kg·mm<sup>2</sup> and a photosensitive layer having steam permeability  $\leq 200$  g·m-2·24 h-1 on a conductive substrate. Preferably, the photoreceptor contains a polymer charge transporting agent having triarylamine structure and an elec. inactive polymer compound. The photoreceptor prevents formation of background stain and image defects in large-scale printing.

IT 376634-31-0  
 (charge-transporting agent; organic electrophotog. photoreceptor having high tensile breaking performance and low steam permeability)

RN 376634-31-0 HCAPLUS

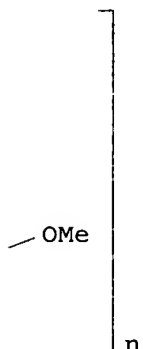
CN Poly[oxycarbonyloxy-1,6-hexanediylloxycarbonyloxy-1,4-phenylene[[4-[(4-methoxyphenyl)phenylamino]phenyl]ethenylidene]-1,4-phenylene]  
 (9CI) (CA INDEX NAME)

PAGE 1-A





PAGE 1-B



IC ICM G03G005-07  
ICS C08G064-04; C08G064-12; C08G077-448; G03G005-047; G03G005-05  
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and  
Other Reprographic Processes)  
IT 376634-24-1 376634-25-2 376634-27-4 376634-28-5  
376634-29-6 376634-30-9 376634-31-0  
376634-32-1  
(charge-transporting agent; organic electrophotog. photoreceptor  
having high tensile breaking performance and low steam  
permeability)

L18 ANSWER 13 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:451224 HCAPLUS

DOCUMENT NUMBER: 135:53484

TITLE: Electrophotographic photoreceptor, process  
cartridge, and electrophotographic apparatus  
INVENTOR(S): Sekiya, Michiyo; Kikuchi, Norihiro; Maruyama,  
Akio; Amamiya, Shoji; Uematsu, Hiroki; Tanaka,  
Hiroyuki; Daichi, Atsushi

PATENT ASSIGNEE(S): Canon Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 115 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 2001166519	A2	20010622	JP 1999-353343	1999 1213

PRIORITY APPLN. INFO.: <--  
JP 1999-353343

1999  
1213

AB The protective layer of the electrophotog. photoreceptor contains  
a compound formed by the polymerization of a pos. hole transporting compound  
having  $\geq 1$  polymerizable functional group and the  
photosensitive layer contains a charge-transporting substance  
having the mol. w.t  $\geq 350$ . The polymerization is initiated by an

electron beam with an acceleration energy of  $\leq 250$  kV and a dose of 1-100 Mrad. The process cartridge and the electrophotog. apparatus are also claimed. The protective layer provided scratch resistance without sacrificing the sensitivity of the photoreceptor.

IT 268223-53-6P

(hole hole transporting polymer contained in protective layer of electrophotog. photoreceptor)

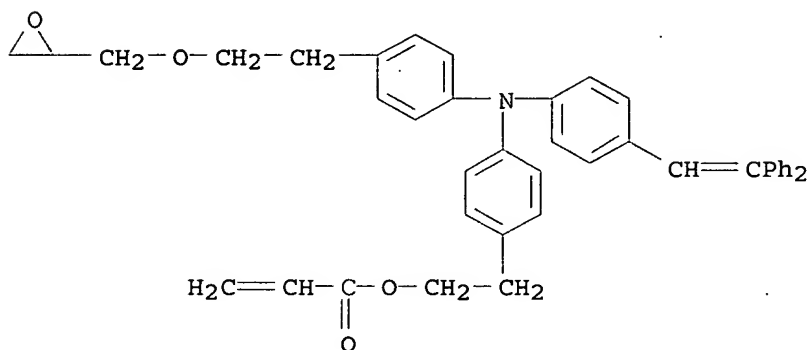
RN 268223-53-6 HCAPLUS

CN 2-Propenoic acid, 2-[4-[[4-(2,2-diphenylethenyl)phenyl][4-[2-(oxiranylmethoxy)ethyl]phenyl]amino]phenyl]ethyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 268223-52-5

CMF C42 H39 N O4



IC ICM G03G005-147

ICS G03G005-06; G03G005-07

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35, 38

IT 268222-22-6P 268222-38-4P 268222-43-1P 268223-53-6P

269402-73-5P 344449-37-2P 344449-39-4P 344449-41-8P

344449-43-0P 344449-45-2P 344449-48-5P 344449-50-9P

344449-53-2P 344449-55-4P

(hole hole transporting polymer contained in protective layer of electrophotog. photoreceptor)

L18 ANSWER 14 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:451223 HCAPLUS

DOCUMENT NUMBER: 135:53483

TITLE: Electrophotographic photoreceptor, process cartridge, and electrophotographic apparatus  
 INVENTOR(S): Amanomiya, Shoji; Maruyama, Akio; Uematsu, Hironori; Kikuchi, Norihiro; Sekiya, Michiyo

PATENT ASSIGNEE(S): Canon Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 98 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001166518	A2	20010622	JP 1999-353307	1999 1213

PRIORITY APPLN. INFO.:

&lt;-- JP 1999-353307

1999  
1213

AB The protective layer of the electrophotog. photoreceptor contains elec. conductive particles and a hole-transporting hardenable resin containing  $\geq 2$  polymerizable functional groups. The hardening of the resin is carried out using an electron beam irradiation with an acceleration voltage  $\leq 250$  kV and a dose 1-100 Mrad. The process cartridge and the electrophotog. apparatus are also claimed. The electrophotog. photoreceptor showed a low residual voltage even after the repetitive use.

IT 269403-03-4P

(protective layer of electrophotog. photoreceptor containing hole-transporting hardenable resin)

RN 269403-03-4 HCAPLUS

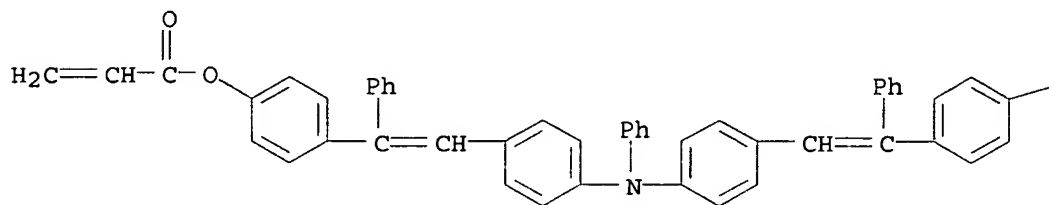
CN 2-Propenoic acid, (phenylimino)bis[4,1-phenylene(1-phenyl-2,1-ethenediyl)-4,1-phenylene] ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

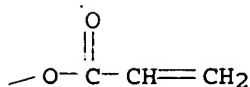
CRN 269403-02-3

CMF C52 H39 N O4

PAGE 1-A



PAGE 1-B



IC ICM G03G005-147

ICS G03G005-06; G03G005-07

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35, 38

IT 268222-38-4P 268222-41-9P 268222-61-3P 268223-02-5P  
269402-73-5P 269403-03-4P 344449-61-2P

344449-63-4P

(protective layer of electrophotog. photoreceptor containing  
hole-transporting hardenable resin)

L18 ANSWER 15 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:451222 HCAPLUS

DOCUMENT NUMBER: 135:53482

TITLE: Electrophotographic photoreceptor, process  
cartridge, and electrophotographic apparatus  
INVENTOR(S): Taichi, Atsushi; Kikuchi, Norihiro; Tanaka,  
Hiroyuki; Sekiya, Michiyo; Amanomiya, Shoji;  
Uematsu, Hironori

PATENT ASSIGNEE(S): Canon Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 113 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001166517	A2	20010622	JP 1999-353251	1999 1213

PRIORITY APPLN. INFO.: JP 1999-353251  
1999  
1213

AB The outermost layer of the electrophotog. photoreceptor contains a compound which is formed by photopolymerization of a pos. hole transporting compound having  $\geq 2$  polymerizable functional groups and is characterized by the exothermic value of  $\leq 60$  mJ/mg as determined by DSC. The polymerization is carried out by UV intensity  $\leq 1,000$  mW/cm<sup>2</sup> for  $\leq 120$  s. The process cartridge and the electrophotog. apparatus area also claimed. The outermost layer acting as a protective layer provided sufficient hardness to give antiabrasive properties.

IT 268223-41-2  
(protective layer containing pos. hole transporting polymer on electrophotog. photoreceptor)

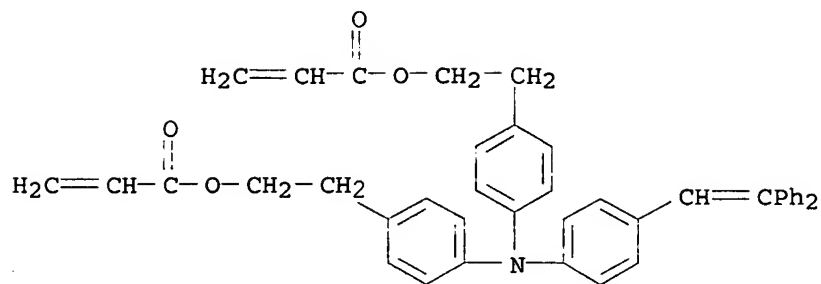
RN 268223-41-2 HCAPLUS

CN 2-Propenoic acid, [[4-(2,2-diphenylethenyl)phenyl]imino]bis(4,1-phenylene-2,1-ethanediyl) ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 268222-15-7

CMF C42 H37 N O4



IC ICM G03G005-147  
 ICS G03G005-06; G03G005-07  
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and  
 Other Reprographic Processes)  
 Section cross-reference(s): 35, 38  
 IT 268222-58-8 268223-02-5 268223-41-2 269402-73-5  
 344449-69-0 344607-72-3  
 (protective layer containing pos. hole transporting polymer on  
 electrophotog. photoreceptor)

L18 ANSWER 16 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:451221 HCAPLUS

DOCUMENT NUMBER: 135:53481

TITLE: Electrophotographic photoreceptor, process  
 cartridge, and electrophotographic apparatus

INVENTOR(S): Taichi, Atsushi; Kikuchi, Norihiro; Uematsu,  
 Hironori; Maruyama, Akio

PATENT ASSIGNEE(S): Canon Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 112 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001166516	A2	20010622	JP 1999-353227	1999 1213

PRIORITY APPLN. INFO.:

JP 1999-353227

1999  
1213

AB The outermost layer of the electrophotog. photoreceptor contains a compound formed by the polymerization of a pos. hole-transporting compound having  $\geq 1$  polymerizable functional group and is characterized by the exothermic value of  $\leq 60 \text{ mJ/mg}$  on the basis of the DSC determination. The polymerization is initiated by an electron beam with an acceleration energy of  $\leq 250 \text{ kV}$ . A dose of the electron beam is set at 1-100 Mrad. The process cartridge and the electrophotog. apparatus using above photoreceptor are also claimed. The film strength of the outer most layer provided scratch resistance.

IT 268223-41-2P

(polymerized pos. hole-transporting compd. contained in outermost layer of electrophotog. photoreceptor)

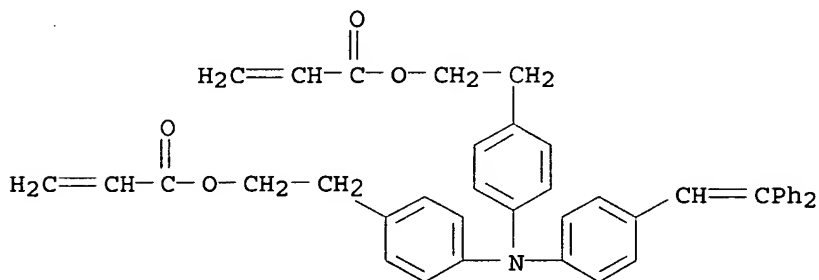
RN 268223-41-2 HCAPLUS

CN 2-Propenoic acid, [[4-(2,2-diphenylethenyl)phenyl]imino]bis(4,1-phenylene-2,1-ethanediyl) ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 268222-15-7

CMF C42 H37 N O4



IC ICM G03G005-147

ICS G03G005-06; G03G005-07

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 35, 38

IT 268222-38-4P 268222-43-1P 268222-53-3P 268222-58-8P

268222-60-2P 268222-61-3P 268223-41-2P 268223-49-0P

269402-73-5P 269402-89-3P 269403-05-6P

344449-64-5P 344449-65-6P 344449-67-8P 344449-69-0P

344449-71-4P 344449-73-6P 344449-75-8P

(polymerized pos. hole-transporting compd. contained in outermost layer of electrophotog. photoreceptor)

L18 ANSWER 17 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:451211 HCAPLUS

DOCUMENT NUMBER: 135:68490

TITLE: Belectrophotographic photoreceptor in process cartridge of electrophotographic apparatus

INVENTOR(S): Tanaka, Hiroyuki; Sekiya, Michiyo; Kikuchi, Norihiro; Uematsu, Hironori; Amanomiya, Shoji; Maruyama, Akio

PATENT ASSIGNEE(S): Canon Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001166502	A2	20010622	JP 1999-353237	1999 1213

PRIORITY APPLN. INFO.:

<--  
JP 1999-3532371999  
1213

AB The title electrophotog. photoreceptor has a topmost layer made of a polymer prepared from a monomer, which has  $\geq 2$  chain-polymerizable groups, with hole-transporting properties. The photoreceptor, which has the topmost layer made of the polymer of the hole-transporting compound, is for contact-charging mode and shows the improved surface wearing.

IT 345638-68-8P

(topmost layer of electrophotog. photoreceptor)

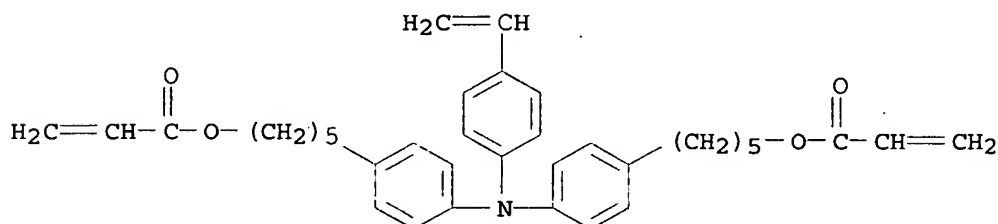
RN 345638-68-8 HCAPLUS

CN 2-Propenoic acid, [(4-ethenylphenyl)imino]bis(4,1-phenylene-5,1-pentanedyl) ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 345638-67-7

CMF C36 H41 N O4



IC ICM G03G005-047

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 35IT 268222-38-4P 268222-61-3P 345638-68-8P 345638-72-4P  
345638-76-8P

(topmost layer of electrophotog. photoreceptor)

L18 ANSWER 18 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:442260 HCAPLUS

DOCUMENT NUMBER: 135:53475

TITLE: Aromatic block polycarbonate resin and its synthesis, diphenol compound used for the synthesis, preparation of same diphenol compound, electrophotographic photoconductor containing same resin, and electrophotography, electrophotographic apparatus, and detachable process cartridge using same photoconductor

INVENTOR(S): Lee, Hong Guo; Sasaki, Masaomi; Nagai, Kazukiyo; Kawamura, Shinichi; Suzuka, Susumu; Morooka, Katsuhiko

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan; Hodogaya Chemical Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 46 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
JP 2001163967	A2	20010619	JP 2000-224229	2000 0725
US 6576386	B1	20030610	US 2000-635127	2000 0809
US 2004002574	A1	20040101	US 2003-347743	2003 0122
US 6919419	B2	20050719	JP 1999-226521	1999 0810
			JP 1999-281648	1999 1001
			JP 2000-224229	2000 0725
			US 2000-635127	2000 0809

OTHER SOURCE(S): MARPAT 135:53475

AB Claimed is an aromatic block polycarbonate resin prepared by polymerizing a diphenol compound having a tertiary-amine group, a diol compound having a carbonate bond H(OXOCO)nOXOH [X = (substituted) divalent group, n = integer of 1-50], and a halogenated carbonyl compound A diphenol compound HOAr1C(:CHAR3NR17R18)Ar2OH [Ar1-3 = (substituted) arylene; R17-18 = acyl, (substituted) alkyl, aryl] and a halogenated carbonyl compound are solution or interface polymerized to give a claimed diphenol compound. The diphenol compound above claimed may be further polymerized with a diol compound and a halogenated carbonyl compound to give the block polycarbonate resin. An electrophotog. photoconductor containing the polycarbonate resin in- or on a photoconductor layer is claimed. An electrophotog. and its apparatus using the photoconductor are claimed. A detachable electrophotog. process cartridge comprising the photoconductor is also claimed. The resin shows high electron-transfer ability as a photoconductor and high mech. strength.

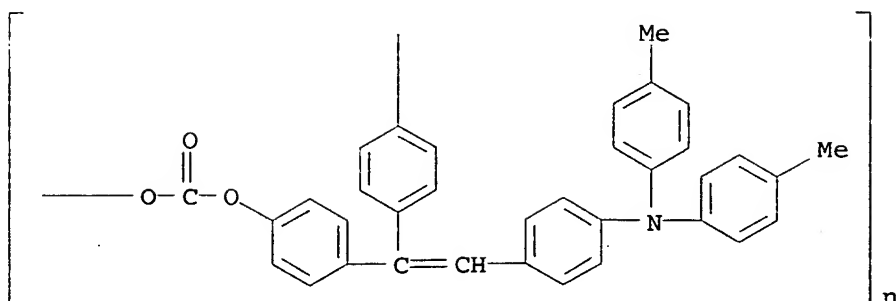
IT 198983-20-9P

(as diphenol monomer; preparation of block polycarbonate using (prepolymd.) diol and (prepolymd.) diphenol for electrophotog. photoconductor)

RN 198983-20-9 HCAPLUS

CN Poly[oxycarbonyloxy-1,4-phenylene[[4-[bis(4-methylphenyl)amino]phenyl]ethenylidene]-1,4-phenylene] (9CI) (CA INDEX NAME)





IC ICM C08G064-18  
ICS G03G005-05  
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 25, 38, 76  
IT 198983-20-9P 344557-27-3P  
(as diphenol monomer; preparation of block polycarbonate using (prepolymd.) diol and (prepolymd.) diphenol for electrophotog. photoconductor)

L18 ANSWER 19 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:299144 HCAPLUS

DOCUMENT NUMBER: 134:334333

TITLE: Organic electronic device and electrophotographic apparatus for image formation

INVENTOR(S): Seki, Mieko; Nukada, Katsumi; Yamada, Wataru; Ishii, Rie

PATENT ASSIGNEE(S): Fuji Xerox Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2001117251	A2	20010427	JP 1999-298463	1999 1020

PRIORITY APPLN. INFO.:

<--  
JP 1999-298463

1999  
1020

OTHER SOURCE(S): MARPAT 134:334333

AB The device, preferably an electrophotog. photoconductor, involves a layer containing a compound with blocked reactive functional group, another functional group reactive with the blocked group, and a charge-transporting group. The photoconductor may use a thermosetting polymer with blocked reactive group as a charge-transporting agent. The apparatus for image formation using the photoconductor, showing abrasion resistance enough for charging by

ozoneless contact charger roller, is also claimed.

IT 335640-19-2P

(electrophotog. photoconductor using charge-transporting polymer with abrasion resistance enough for charging with contact charger roller)

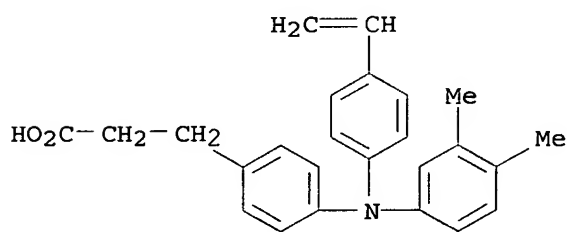
RN 335640-19-2 HCAPLUS

CN Benzenepropanoic acid, 4-[(3,4-dimethylphenyl)(4-ethenylphenyl)amino]-, polymer with oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 335640-18-1

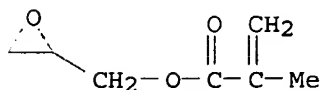
CMF C25 H25 N O2



CM 2

CRN 106-91-2

CMF C7 H10 O3



IC ICM G03G005-07

ICS G03G005-07

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

IT 184583-47-9P 335640-10-3P 335640-12-5P 335640-13-6P

335640-15-8P 335640-17-0P 335640-19-2P

(electrophotog. photoconductor using charge-transporting polymer with abrasion resistance enough for charging with contact charger roller)

L18 ANSWER 20 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:861220 HCAPLUS

DOCUMENT NUMBER: 134:49154

TITLE: Hole-transporting polymer and electrophotographic photoreceptor

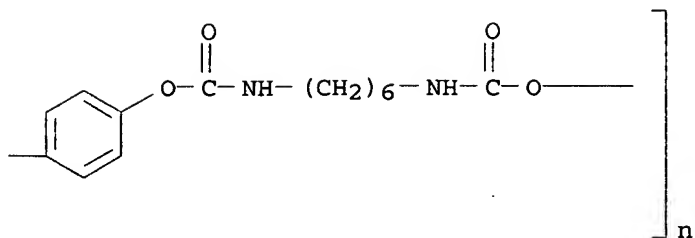
INVENTOR(S): Nagai, Kazukiyo; Sasaki, Masaomi; Lee, Hong Kook; Kawamura, Shinichi; Suzuka, Susumu; Morooka, Katsuhiko

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan; Hodogaya Chemical Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 26 pp.



PAGE 1-B



IC ICM G03G005-07  
ICS C08G018-32  
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 35, 38, 76  
IT 312612-13-8P 312612-14-9P 312612-15-0P 312612-16-1P  
312612-17-2P 312612-18-3P 312612-19-4P 312612-20-7P  
312612-21-8P 312612-22-9P 312612-23-0P 312774-17-7P  
312774-24-6P  
(hole-transporting polymer for electrophotog. photoreceptor)

L18 ANSWER 21 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 2000:804038 HCAPLUS  
DOCUMENT NUMBER: 133:367812  
TITLE: Electrophotographic photoreceptor using charge-transporting aromatic polycarbonate  
INVENTOR(S): Lee, Hong Guo; Sasaki, Masaomi; Nagai, Kazukiyo; Kawamura, Shinichi; Suzuka, Susumu; Morooka, Katsuhiko  
PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan; Hodogaya Chemical Co., Ltd.  
SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000314973	A2	20001114	JP 1999-124419	1999 0430

PRIORITY APPLN. INFO.:

<--  
JP 1999-124419

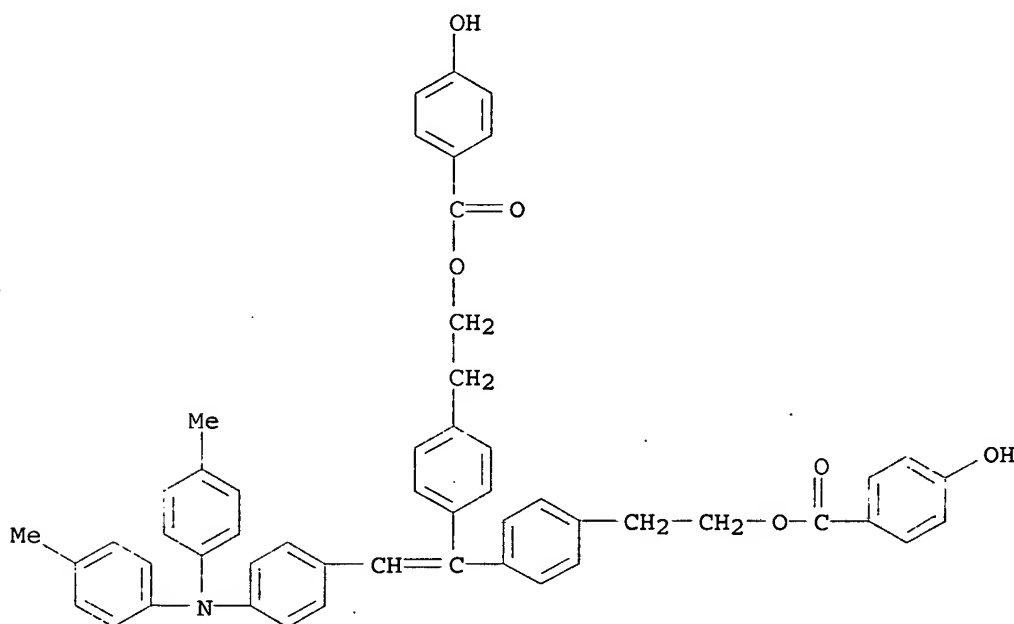
1999  
0430

AB The title photoreceptor comprises a conductive support coated with a photosensitive layer containing an aromatic polycarbonate resin obtained by polycondensation of a diol compound and a diphenol compound with tertiary amine structure  $(\text{HOArCO}_2\text{R}_1\text{Ar})_2\text{C}:\text{CHArNR}_2\text{R}_3$  [Ar = (substituted) arylene; R<sub>1</sub> = single bond, (substituted) aliphatic divalent group; R<sub>2</sub>, R<sub>3</sub> = acyl, (substituted) alkyl, (substituted) aryl]. The photoreceptor shows high photosensitivity and durability in repeated use.

IT 306960-15-6P  
 (electrophotog. photoreceptor using charge-transporting aromatic polycarbonate)  
 RN 306960-15-6 HCAPLUS  
 CN Benzoic acid, 4-hydroxy-, [[4-[bis(4-methylphenyl)amino]phenyl]ethenylidene]bis(4,1-phenylene-2,1-ethanediyl) ester, polymer with bis(trichloromethyl) carbonate and 4,4'-(1-methylethenylidene)bis[2-methylphenol] (9CI) (CA INDEX NAME)

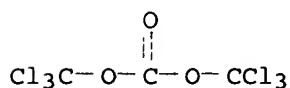
CM 1

CRN 306960-14-5  
 CMF C52 H45 N O6



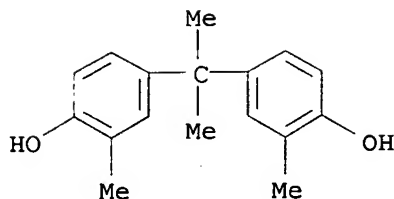
CM 2

CRN 32315-10-9  
 CMF C3 Cl6 O3



CM 3

CRN 79-97-0  
 CMF C17 H20 O2



IC ICM G03G005-07  
ICS C08G064-18; C08L069-00  
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
IT 306960-15-6P  
(electrophotog. photoreceptor using charge-transporting aromatic polycarbonate)

L18 ANSWER 22 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:749083 HCAPLUS

DOCUMENT NUMBER: 133:315590

TITLE: Electrophotographic photoreceptor containing polymer charge-transporting agent and image forming method

INVENTOR(S): Kami, Hidetoshi; Suzuki, Tetsuo; Tamura, Hiroshi; Ohta, Shoichi

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 27 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000298365	A2	20001024	JP 1999-105849	1999 0413

PRIORITY APPLN. INFO.: JP 1999-105849

1999  
0413

AB In the electrophotog. photoreceptor comprising a support successively coated with a charge-generating layer and a charge-transporting layer, the charge-transporting layer contains a polymer charge-transporting agent and has glass transition temperature  $\geq 85^\circ$ . The photoreceptor may be used for electrophotog. process comprising a contact-charging, exposure, development, transfer, and cleaning. Image-forming method using the photoreceptor is also claimed. The photoreceptor shows good heat and abrasion resistance and is useful for compact-type electrophotog. apparatus

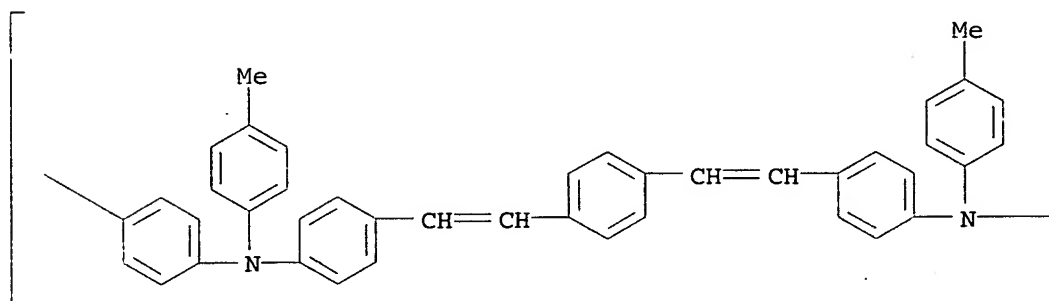
IT 302597-78-0  
(electrophotog. photoreceptor containing polymer charge-transporting agent)

RN 302597-78-0 HCAPLUS

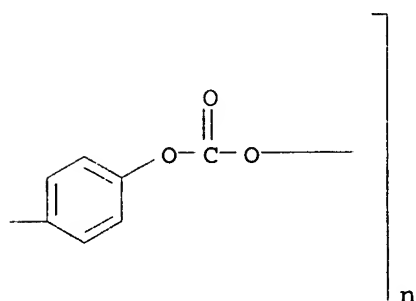
CN Poly[oxycarbonyloxy-1,4-phenylene[(4-methylphenyl)imino]-1,4-

phenylene-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl-1,4-phenylene[(4-methylphenyl)imino]-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM G03G005-07  
 ICS C08G064-12; C08L065-00; C08L067-00; C08L069-00; C08L075-04  
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 Section cross-reference(s): 38  
 IT 302597-60-0 302597-61-1 302597-62-2 302597-64-4  
 302597-65-5 302597-66-6 302597-68-8 302597-70-2  
 302597-72-4 302597-74-6 302597-76-8 302597-77-9  
 302597-78-0  
 (electrophotog. photoreceptor containing polymer charge-transporting agent)

L18 ANSWER 23 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:674131 HCAPLUS

DOCUMENT NUMBER: 133:274206

TITLE: Charge-transporting polyester with improved abrasion resistance, electrophotog. photoreceptor material, and

electrophotographic photoreceptor using it  
 INVENTOR(S): Yamada, Wataru; Nukada, Katsuki; Ishii, Rie; Seki, Mieko

PATENT ASSIGNEE(S): Fuji Xerox Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 33 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

## PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000264961	A2	20000926	JP 1999-65810	1999 0312
JP 3692822	B2	20050907	JP 1999-65810	1999 0312

AB The charge-transporting polyester comprises DOBO(COACO2BO)<sub>n</sub>D [I; A, B = (unsatd. aliphatic hydrocarbon-substituted) charge-transporting group, divalent aromatic hydrocarbon, (un)saturate aliphatic hydrocarbon; D = H, unsatd. aliphatic group, unsatd. aliphatic carbonyl; n = 5-1000; ≥1 of A, B, and D is polymerizable unsatd. hydrocarbon group]. The photoreceptor material comprises I. The photoreceptor comprises an elec. conductive support laminated with a photosensitive layer using I. The polyester I is useful for both charge-transporting agents and surface-protective binders in electrophotog. photoreceptors.

IT 296788-89-1P

(unsatd. polyamine-polyester with improved abrasion resistance for charge-transporting agent of electrophotog. photoreceptor)

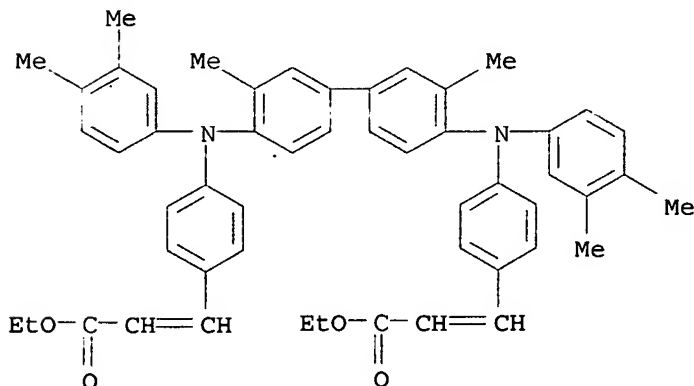
RN 296788-89-1 HCAPLUS

CN 2-Propenoic acid, 3,3'-[(3,3'-dimethyl[1,1'-biphenyl]-4,4'-diyl)bis-[(3,4-dimethylphenyl)imino]-4,1-phenylene]]bis-, diethyl ester, polymer with 1,2-ethanediol (9CI) (CA INDEX NAME)

CM 1

CRN 296788-88-0

CMF C52 H52 N2 O4

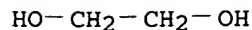


CM 2

CRN 107-21-1

CMF C2 H6 O2





IC ICM C08G063-685  
ICS C08G063-52; G03G005-07  
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 38  
IT 187342-16-1P 296788-89-1P 296788-90-4P  
296788-95-9P 296788-97-1P 296788-99-3P  
296789-01-0P 296789-02-1P 297131-97-6P  
(unsatd. polyamine-polyester with improved abrasion resistance for charge-transporting agent of electrophotog. photoreceptor)

L18 ANSWER 24 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:357240 HCAPLUS

DOCUMENT NUMBER: 133:10978

TITLE: Electrophotographic photoconductor, process cartridge, and electrophotographic apparatus

INVENTOR(S): Uematsu, Hironori; Kikuchi, Norihiro; Maruyama, Akio; Amanomiya, Shoji; Sekiya, Michiyo; Tanaka, Hiroyuki; Nakamura, Kazunari

PATENT ASSIGNEE(S): Canon Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 116 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

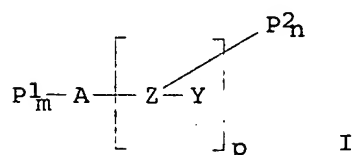
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 2000147814	A2	20000526	JP 1998-323053	1998 1113

PRIORITY APPLN. INFO.: JP 1998-323053

1998

1113

GI



AB The electrophotog. photoconductor contains a phthalocyanine charge generation substance and a pos. hole transport substance containing chain polymerizable groups and/or its cured product. The pos. hole transport substance is represented by general formula I (A = pos. hole transport group; P<sub>1</sub>, P<sub>2</sub> = chain polymerizable group; Z =

organic group; Y = H; m, p, n ≥ 0). The electrophotog. photoconductor shows excellent durability.

IT 268223-41-2  
(polymerized pos. hole transport substance in electrophotog. photoconductor)

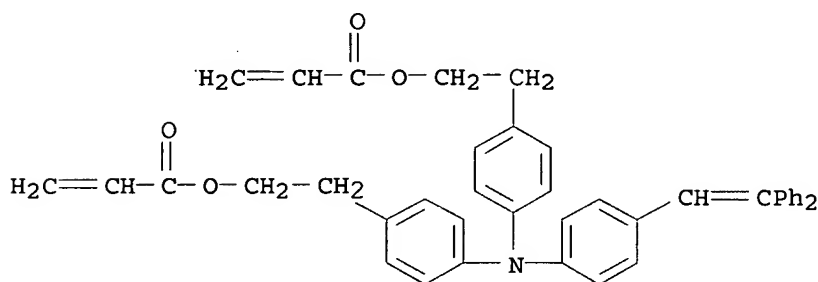
RN 268223-41-2 HCAPLUS

CN 2-Propenoic acid, [[4-(2,2-diphenylethenyl)phenyl]imino]bis(4,1-phenylene-2,1-ethanediyl) ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 268222-15-7

CMF C42 H37 N O4



IC ICM G03G005-06  
ICS G03G005-06; C08F012-08; C08F016-12; C08F020-10; C08K005-3472;  
C08L025-00; C08L029-10; C08L033-14; G03G005-07

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 268222-38-4 268222-41-9 268222-51-1 268222-61-3  
268222-82-8 268222-89-5 268223-02-5 268223-41-2  
268223-84-3 269402-73-5 269402-86-0 269402-87-1  
270594-87-1  
(polymerized pos. hole transport substance in electrophotog. photoconductor)

L18 ANSWER 25 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:357239 HCAPLUS

DOCUMENT NUMBER: 133:10977

TITLE: Electrophotographic photoconductor, process cartridge, and electrophotographic apparatus

INVENTOR(S): Uematsu, Hironori; Kikuchi, Norihiro; Maruyama, Akio; Amanomiya, Shoji; Sekiya, Michiyo; Tanaka, Hiroyuki; Nakamura, Kazunari

PATENT ASSIGNEE(S): Canon Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 116 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

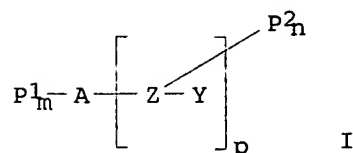
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000147813	A2	20000526	JP 1998-323052	

1998  
1113

PRIORITY APPLN. INFO.:

<--  
JP 1998-3230521998  
1113

GI



AB The electrophotog. photoconductor contains a phthalocyanine charge generation substance and a pos. hole transport substance containing chain polymerizable groups and/or its cured product. The pos. hole transport substance is represented by general formula I (A = pos. hole transport group; P1, P2 = chain polymerizable group; Z = organic group; Y = H; m, p, n ≥ 0). The polymerization is carried out by the electron-beam-induced polymerization. The electrophotog. photoconductor shows excellent durability.

IT 268223-41-2

(polymerized pos. hole transport substance in electrophotog. photoconductor)

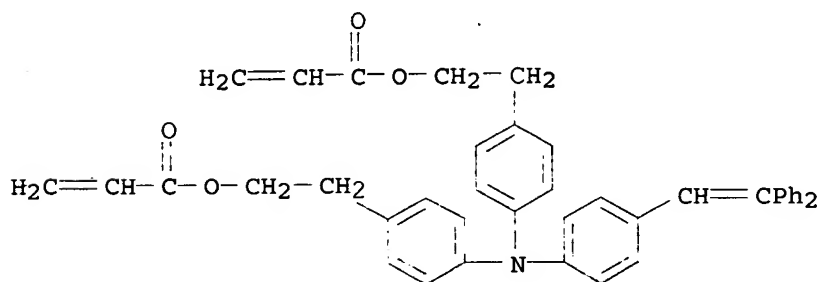
RN 268223-41-2 HCAPLUS

CN 2-Propenoic acid, [[4-(2,2-diphenylethenyl)phenyl]imino]bis(4,1-phenylene-2,1-ethanediyl) ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 268222-15-7

CMF C42 H37 N O4



IC ICM G03G005-06

ICS G03G005-06; G03G005-07

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 268222-38-4 268222-41-9 268222-51-1 268222-61-3

268222-82-8    268222-89-5    268223-02-5    268223-41-2  
 268223-84-3    269402-73-5    269402-86-0    269402-87-1  
 270594-87-1

(polymerized pos. hole transport substance in electrophotog.  
 photoconductor)

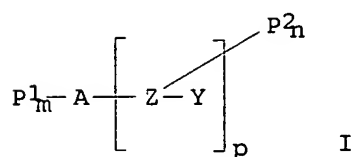
L18 ANSWER 26 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:356743 HCAPLUS  
 DOCUMENT NUMBER: 132:354716  
 TITLE: Electrophotographic photoconductor, process  
 cartridge, and electrophotographic apparatus  
 INVENTOR(S): Maruyama, Akio; Uematsu, Hironori; Kikuchi,  
 Norihiro; Amanomiya, Shoji; Sekiya, Michiyo  
 PATENT ASSIGNEE(S): Canon Inc., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 113 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2000147815	A2	20000526	JP 1998-322740	1998 1113

PRIORITY APPLN. INFO.: JP 1998-322740  
 1998  
 1113

GI



AB The electrophotog. photoconductor contains a pos. hole transport substance containing chain polymerizable groups and/or its cured product. The pos. hole transport substance is represented by general formula I (A = pos. hole transport group; P1, P2 = chain polymerizable group; Z = organic group; Y = H; m, p, n ≥ 0). The polymerization is carried out by the electron-beam-induced polymerization. The electrophotog. photoconductor shows excellent charging stability for an extended usage.

IT 268222-68-0  
 (polymerized pos. hole transport substance for electrophotog.  
 photoconductor)

RN 268222-68-0 HCAPLUS

CN 2-Propenoic acid, 1,2-ethenediylbis[4,1-phenylene[(4-methylphenyl)imino]-4,1-phenylenemethylene] ester, homopolymer

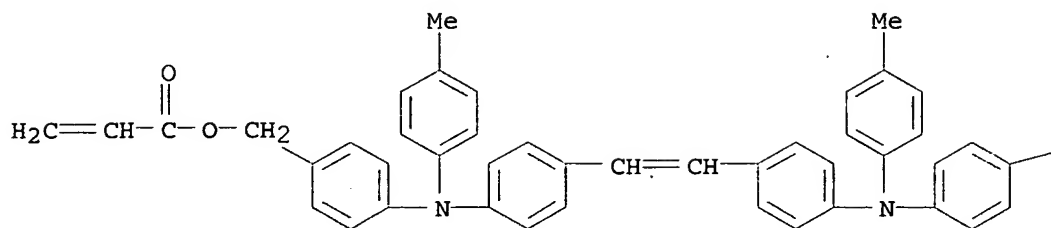
(9CI) (CA INDEX NAME)

CM 1

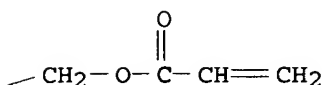
CRN 268222-04-4

CMF C48 H42 N2 O4

PAGE 1-A



PAGE 1-B



IC ICM G03G005-07

ICS G03G005-047; G03G005-06

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 268222-38-4 268222-41-9 268222-61-3 268222-68-0

268223-02-5 269402-73-5 269402-75-7 269402-79-1

269402-83-7 269402-86-0 269402-87-1 269402-89-3

269402-91-7 269402-93-9 269402-95-1 269402-97-3

269402-99-5 269403-01-2 269403-03-4

269403-05-6 269403-12-5

(polymerized pos. hole transport substance for electrophotog. photoconductor)

L18 ANSWER 27 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:356740 HCAPLUS

DOCUMENT NUMBER: 132:354713

TITLE: Electrophotographic photoconductor, process cartridge, and electrophotographic apparatus

INVENTOR(S): Maruyama, Akio; Uematsu, Hironori; Kikuchi, Norihiro; Amanomiya, Shoji; Sekiya, Michiyo

PATENT ASSIGNEE(S): Canon Inc., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 112 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

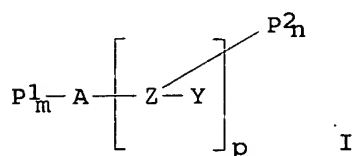
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----

GI



AB The electrophotog. photoconductor contains a pos. hole transport substance containing chain polymerizable groups and/or its cured product. The pos. hole transport substance is represented by general formula I (A = pos. hole transport group; P1, P2 = chain polymerizable group; Z = organic group; Y = H; m, p, n  $\geq$  0). The electrophotog. photoconductor shows excellent charging stability for an extended usage.

IT 269402-89-3

(polymerized pos. hole transport substance in electrophotog.  
photoconductor)

RN 269402-89-3 HCAPLUS

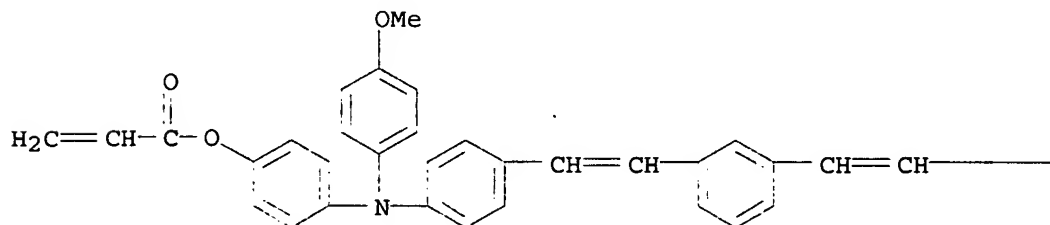
CN 2-Propenoic acid, 1,3-phenylenebis[2,1-ethenediyl-4,1-phenylene[(4-methoxyphenyl)imino]-4,1-phenylene] ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

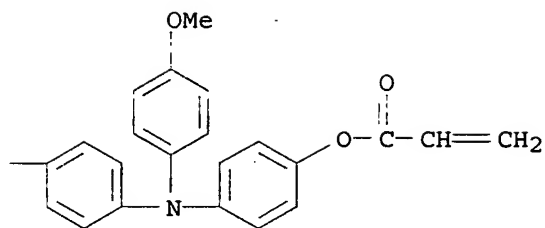
CRN 269402-88-2

CMF C54 H44 N2 O6

PAGE 1-A



PAGE 1-B



IC ICM G03G005-06  
ICS G03G005-06; G03G005-07  
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and  
Other Reprographic Processes)  
IT 268222-38-4 268222-47-5 268222-60-2 268222-61-3  
268222-82-8 268223-02-5 269402-73-5 269402-86-0  
269402-87-1 269402-89-3 269402-93-9 269402-97-3  
269403-01-2 269403-03-4 269403-05-6  
269403-12-5 269411-28-1  
(polymerized pos. hole transport substance in electrophotog.  
photoconductor)

L18 ANSWER 28 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2000:335150 HCAPLUS

DOCUMENT NUMBER: 132:341154

TITLE: Electrophotographic photosensitive member,  
process cartridge and electrophotographic  
apparatus

INVENTOR(S): Kikuchi, Toshihiro; Muruyama, Akio; Uematsu,  
Hiroki

PATENT ASSIGNEE(S): Canon Kabushiki Kaisha, Japan

SOURCE: Eur. Pat. Appl., 135 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1001316	A1	20000517	EP 1999-122572	1999 1112
<--				
US 6416915	B1	20020709	US 1999-438529	1999 1112
<--				
JP 2000206715	A2	20000728	JP 1999-324658	1999 1115
<--				
JP 2000206716	A2	20000728	JP 1999-324659	1999

				1115
			<--	
JP 2000206717	A2	20000728	JP 1999-324660	
				1999
				1115
			<--	
JP 2000206718	A2	20000728	JP 1999-324661	
				1999
				1115
			<--	
US 2004043312	A1	20040304	US 2002-158127	
				2002
				0531
			<--	
PRIORITY APPLN. INFO.:			JP 1998-323066	A
				1998
				1113
			<--	
			JP 1998-323067	A
				1998
				1113
			<--	
			JP 1998-323084	A
				1998
				1113
			<--	
			JP 1998-323085	A
				1998
				1113
			<--	
			US 1999-438529	A3
				1999
				1112

AB An electrophotog. photosensitive member has a photosensitive layer on an electroconductive support, wherein the photosensitive layer has a polymerizate of a hole-transporting compound having  $\geq 2$  chain polymerization function groups represented by formula  $-(-P1)a-A-(Z-(P2)d)b$  (A= hole-transporting group; P1, P2 = chain polymerization function group; Z = bonding organic group; a, b, d = integer of at least 0 satisfying  $a + b \times d \geq 2$  provided that if a  $\geq 2$ , plural groups P1 can be identical or different; if b  $\geq 2$ , plural groups Z can be identical or different; and if  $b \times d \geq 2$ , plural groups P2 can be identical or different). The photosensitive layer shows the excellent durability while retaining good electrophotog. performances.

IT 268222-68-0P

(hole-transporting compound in photosensitive layer)

RN 268222-68-0 HCAPLUS

CN 2-Propenoic acid, 1,2-ethenediylbis[4,1-phenylene[(4-methylphenyl)imino]-4,1-phenylenemethylene] ester, homopolymer (9CI) (CA INDEX NAME)

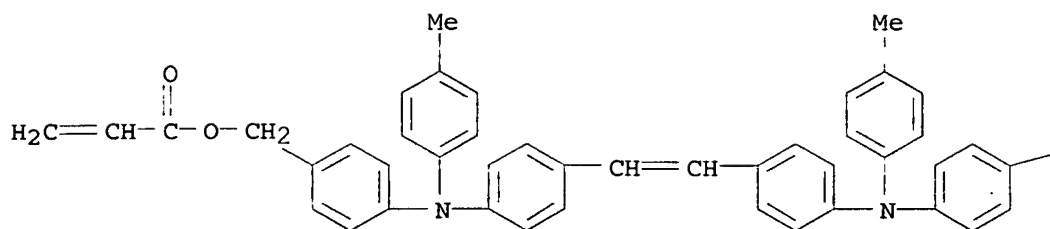
CM 1

CRN 268222-04-4

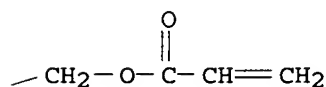
CMF C48 H42 N2 O4



PAGE 1-A



PAGE 1-B



IC ICM G03G005-07  
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and  
 Other Reprographic Processes)  
 IT 268222-19-1P 268222-22-6P 268222-25-9P 268222-28-2P  
 268222-30-6P 268222-33-9P 268222-36-2P 268222-38-4P  
 268222-41-9P 268222-43-1P 268222-45-3P 268222-47-5P  
 268222-49-7P 268222-51-1P 268222-53-3P 268222-55-5P  
 268222-57-7P 268222-58-8P 268222-60-2P 268222-61-3P  
 268222-63-5P 268222-65-7P 268222-67-9P 268222-68-0P  
 268222-70-4P 268222-72-6P 268222-74-8P 268222-76-0P  
 268222-78-2P 268222-80-6P 268222-82-8P 268222-85-1P  
 268222-87-3P 268222-89-5P 268222-91-9P  
 268222-93-1P 268222-95-3P 268222-97-5P  
 268222-99-7P 268223-01-4P 268223-02-5P 268223-04-7P  
 268223-06-9P 268223-08-1P 268223-10-5P 268223-12-7P  
 268223-14-9P 268223-16-1P 268223-18-3P 268223-20-7P  
 268223-22-9P 268223-24-1P 268223-26-3P 268223-28-5P  
 268223-30-9P 268223-32-1P 268223-34-3P 268223-36-5P  
 268223-38-7P 268223-40-1P 268223-41-2P 268223-43-4P  
 268223-45-6P 268223-47-8P 268223-49-0P  
 268223-51-4P 268223-53-6P 268223-55-8P  
 268223-57-0P 268223-59-2P 268223-60-5P  
 268223-62-7P 268223-64-9P 268223-66-1P 268223-68-3P  
 268223-70-7P 268223-72-9P 268223-74-1P  
 268223-76-3P 268223-78-5P 268223-80-9P  
 268223-82-1P 268223-83-2P 268223-84-3P 268223-85-4P  
 268223-86-5P 268223-87-6P 268223-88-7P  
 268223-89-8P 268223-90-1P 268223-91-2P  
 268223-93-4P 268223-94-5P 268223-95-6P  
 268223-98-9P 268223-99-0P 268224-01-7P  
 (hole-transporting compound in photosensitive layer)  
 REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE  
 FOR THIS RECORD. ALL CITATIONS AVAILABLE  
 IN THE RE FORMAT

L18 ANSWER 29 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1999:787762 HCAPLUS

DOCUMENT NUMBER: 132:42801  
 TITLE: Electrophotographic photoreceptors containing copolymers of (meth)acrylic triarylamine compounds and polysiloxane mono(meth)acrylates  
 INVENTOR(S): Tamura, Hiroshi; Suzuki, Tetsuo; Kami, Hidetoshi; Ikuno, Hiroshi; Kurimoto, Eiji; Nagame, Hiroshi; Sakon, Yota; Kojima, Shigeto  
 PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 29 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11344818	A2	19991214	JP 1998-164451	1998 0529
JP 3690633	B2	20050831	JP 1998-164451	1998 0529

AB The photoreceptors contain copolymers of (A) (meth)acrylic compds. with triarylamine structures and (B) polysiloxane mono(meth)acrylates in  $\geq 1$  layer of surface layers farthest away from electroconductive substrates. A may be shown as  $\text{CH}_2:\text{CR}_1\text{CO}_2\text{C}_6\text{H}_4(\text{Ar}_1)\text{nNRAr}_2\text{Ar}_3$  and B may be shown as  $\text{CH}_2:\text{CR}_2\text{CO}_2(\text{CH}_2)_l\text{Oj}(\text{R}_3\text{R}_4\text{SiO})\text{mSiR}_5\text{R}_6\text{R}_7$  ( $\text{R}_1 = \text{H, Me; Ar}_1 = \text{arylene; Ar}_2, \text{Ar}_3 = \text{aryl; n} = 0-2; \text{R}_2 = \text{H, Me; R}_3-\text{R}_7 = \text{aryl, phenyl; l} = 0-6; \text{j} = 0, 1; \text{m} = 10-1000$ ). A may be shown as  $\text{CH}_2:\text{CR}_5\text{CO}_2\text{C}_6\text{H}_4(\text{CH}:\text{CH})\text{pAr}_4\text{NAr}_5\text{Ar}_6$  ( $\text{R}_8 = \text{H, Me; Ar}_4 = \text{arylene; Ar}_5, \text{Ar}_6 = \text{aryl; p} = 1, 2$ ). A may be  $\text{CH}_2:\text{CR}_9\text{CO}_2\text{C}_6\text{H}_4(\text{CH}_2)_q\text{Ar}_7\text{NAr}_8\text{Ar}_9$  ( $\text{R}_9 = \text{H, Me; Ar}_7 = \text{arylene; Ar}_8, \text{Ar}_9 = \text{aryl; q} = 1-4$ ). A binder resin and a low or high mol.-weight charge transfer material may be further employed. The photoreceptor has long service life and are especially suitable for a photocopying machine, a FAX machine, a laser printer, and direct digital platemaking machine.

IT 252259-12-4P, N-[4-(4-Methacryloyloxystyryl)phenyl]-N-phenyl- $\alpha$ -phenylstilbene-4'-amine-X 22-174DX graft copolymer (electrophotog. photoreceptors containing copolymers of (meth)acrylic triarylamine compds. and polysiloxane mono(meth)acrylates)

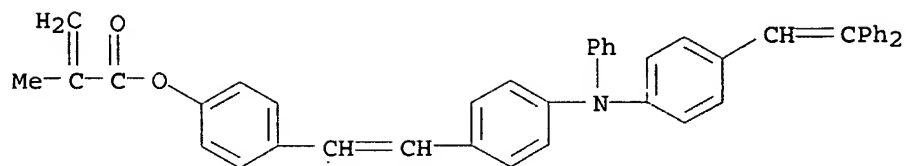
RN 252259-12-4 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 4-[2-[4-[[4-(2,2-diphenylethenyl)phenyl]phenylamino]phenyl]ethenyl]phenyl ester, polymer with  $\alpha$ -[dimethyl[3-[(2-methyl-1-oxo-2-propenyl)oxy]propyl]silyl]- $\omega$ -[(trimethylsilyl)oxy]poly[oxy(dimethylsilylene)], graft (9CI) (CA INDEX NAME)

CM 1

CRN 252259-11-3

CMF C44 H35 N O2

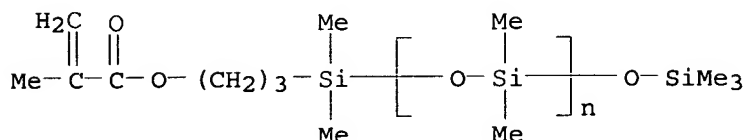


CM 2

CRN 123109-42-2

CMF (C2 H6 O Si)<sub>n</sub> C12 H26 O3 Si2

CCI PMS



IC ICM G03G005-07

ICS G03G005-05; G03G005-147

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 25, 35, 38

IT 152580-60-4DP, polymer with [[[meth)acryloyloxy]alkyl] group-terminated di-Me polysiloxanes 252259-09-9DP, 3-Methacryloyloxy-4'-di(p-tolyl)aminostilbene, polymer with [[[meth)acryloyloxy]alkyl] group-terminated di-Me polysiloxanes 252259-12-4P, N-[4-(4-Methacryloyloxystyryl)phenyl]-N-phenyl- $\alpha$ -phenylstilbene-4'-amine-X 22-174DX graft copolymer, 252259-13-5P

(electrophotog. photoreceptors containing copolymers of (meth)acrylic triarylamine compds. and polysiloxane mono(meth)acrylates)

L18 ANSWER 30 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1999:640211 HCAPLUS

DOCUMENT NUMBER: 131:279247

TITLE: Electrophotographic photoreceptor with charge generating layer containing block copolymer binder and its manufacture

INVENTOR(S): Aramaki, Shinji; Sato, Chiyoko

PATENT ASSIGNEE(S): Mitsubishi Chemical Industries Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11271990	A2	19991008	JP 1998-74129	1998 0323

PRIORITY APPLN. INFO.:

<--  
JP 1998-741291998  
0323

OTHER SOURCE(S): MARPAT 131:279247

AB The photoreceptor has a layer in which a charge generating organic pigment is dispersed in a binder comprising a block copolymer characterized by that a homopolymer of  $\geq 1$  monomer component forms a polymer with solubility or high affinity to alc. The layer is manufactured by dispersing the binder polymer and the organic pigment in an alc. solvent and by coating the dispersions. The photoreceptor shows increased sensitivity and reduced residual potential.

IT 245366-88-5DP, p-N,N-Diphenylaminostyrene-trimethylsilyloxyethyl methacrylate block copolymer, hydrolyzed (electrophotog. photoreceptor with charge generating layer containing block copolymer as binder)

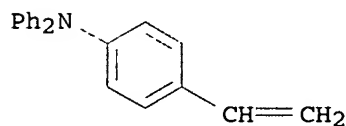
RN 245366-88-5 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-[(trimethylsilyl)oxy]ethyl ester, polymer with 4-ethenyl-N,N-diphenylbenzenamine, block (9CI) (CA INDEX NAME)

CM 1

CRN 25069-74-3

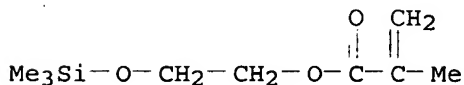
CMF C20 H17 N



CM 2

CRN 17407-09-9

CMF C9 H18 O3 Si



IC ICM G03G005-05

ICS G03G005-05; G03G005-06

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 245366-88-5DP, p-N,N-Diphenylaminostyrene-trimethylsilyloxyethyl methacrylate block copolymer, hydrolyzed (electrophotog. photoreceptor with charge generating layer containing block copolymer as binder)

L18 ANSWER 31 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1999:498666 HCAPLUS

DOCUMENT NUMBER: 131:177315

TITLE: Electrophotographic photoreceptor containing

INVENTOR(S): charge-transporting aromatic polycarbonate  
Tanaka, Chiaki; Sasaki, Masaomi; Nagai,  
Kazukiyo; Kawamura, Shinichi; Suzuka, Susumu;  
Morooka, Katsuhiko

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan; Hodogaya Chemical Co.,  
Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 36 pp.  
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

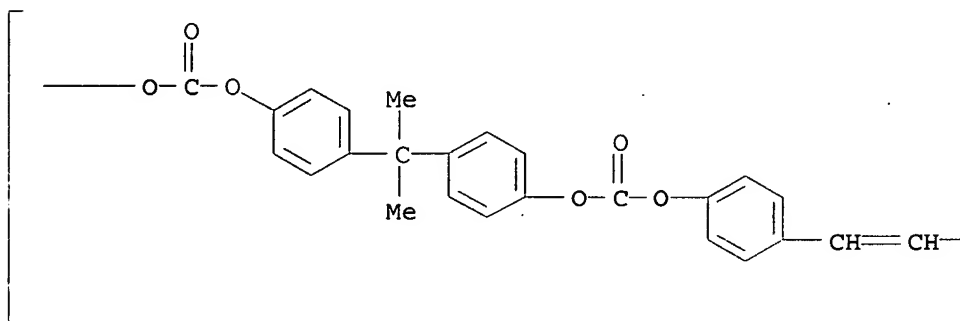
FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

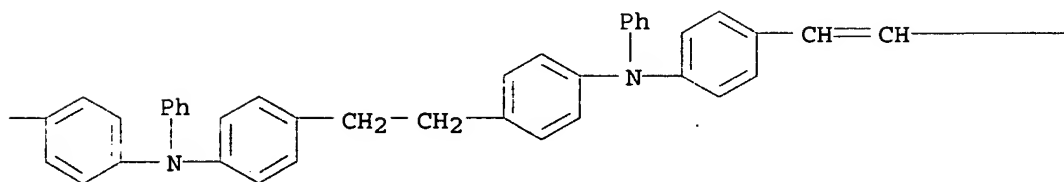
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11218948	A2	19990810	JP 1998-162207	1998 0610
US 5976746	A	19991102	US 1998-95708	1998 0611
US 6172176	B1	20010109	US 1999-337559	1999 0622
PRIORITY APPLN. INFO.:			JP 1997-326324	A 1997 1127
			JP 1997-153846	A 1997 0611
			JP 1997-153988	A 1997 0611
			JP 1998-160845	A 1998 0609
			JP 1998-160853	A 1998 0609
			JP 1998-162207	A 1998 0610
			JP 1998-162228	A 1998 0610
			US 1998-95708	A3 1998 0611

- AB The photoreceptor comprises an elec. conducting support having thereon a photosensitive layer containing a polycarbonate with structuring units such as [OAr1C(R1):CHAr3N(Ar5)Ar4XAr6N(Ar8)Ar7CH:C(R2)Ar2OCO] (R1,2 = alkyl, etc.; Ar1-8 = aromatic substituent) optionally associated with (OYOCO) (Y = aliphatic bivalent group, alicyclic bivalent group, etc.). The photoreceptor shows high sensitivity and endurance.
- IT 221238-26-2P  
(electrophotog. photoconductor containing charge-transporting polycarbonate with improved sensitivity and endurance)
- RN 221238-26-2 HCAPLUS
- CN Poly[oxy carbonyloxy-1,4-phenylene(1-methylethylidene)-1,4-phenyleneoxy carbonyloxy-1,4-phenylene-1,2-ethenediyl-1,4-phenylene(phenylimino)-1,4-phenylene-1,2-ethenediyl-1,4-phenylene(phenylimino)-1,4-phenylene-1,2-ethenediyl-1,4-phenylene]  
(9CI) (CA INDEX NAME)

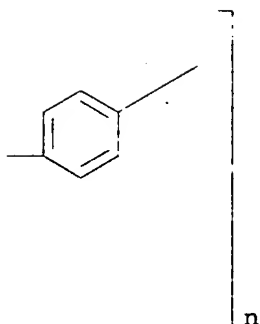
PAGE 1-A



PAGE 1-B



PAGE 1-C



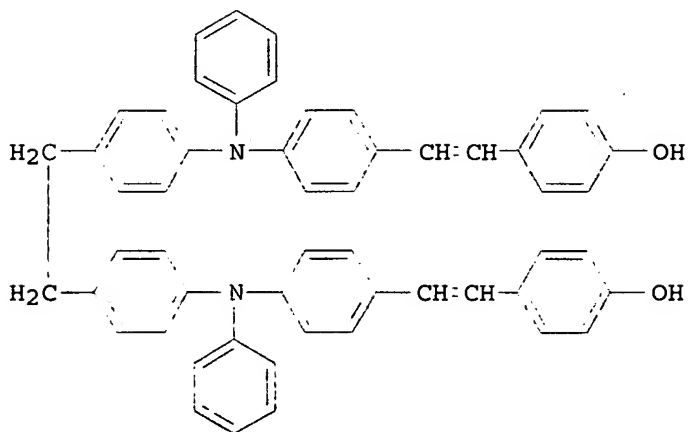
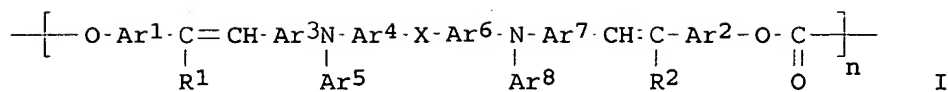
IC ICM G03G005-07  
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 Section cross-reference(s): 38  
 IT 221238-20-6P **221238-26-2P** 221238-40-0P  
 221238-45-5P 221238-49-9P 221238-54-6P 221238-57-9P  
 221238-62-6P 221238-67-1P 238426-93-2P  
 (electrophotog. photoconductor containing charge-transporting polycarbonate with improved sensitivity and endurance)

L18 ANSWER 32 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1999:162115 HCAPLUS  
 DOCUMENT NUMBER: 130:252825  
 TITLE: Aromatic polycarbonate resin as photosensitive material in electrography  
 INVENTOR(S): Tanaka, Chiaki; Sasaki, Masaomi; Nagai, Kazukiyo; Kawamura, Shinichi; Suzuka, Susumu; Morooka, Katsuhiro  
 PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan; Hodogaya Chemical Co., Ltd.  
 SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 4  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 11060718	A2	19990305	JP 1998-160853	1998 0609
US 5976746	A	19991102	US 1998-95708	1998 0611
US 6172176	B1	20010109	US 1999-337559	1999 0622
PRIORITY APPLN. INFO.:			JP 1997-153846	A 1997

		0611
<--		
JP 1997-153988	A	1997 0611
<--		
JP 1997-326324	A	1997 1127
<--		
JP 1998-160845	A	1998 0609
<--		
JP 1998-160853	A	1998 0609
<--		
JP 1998-162207	A	1998 0610
<--		
JP 1998-162228	A	1998 0610
<--		
US 1998-95708	A3	1998 0611
<--		

GI



II

AB Title polycarbonate has a structure (I) where R1 and R2 are H, alkyl or allyl, Ar1-Ar7 are arylene groups, X is o, s, so, so2,



co, alkylene or arylene. Thus, (II) 2.26 g, tetraethylene glycol bischloroformate 1.10 g were reacted to give a polycarbonate 2.36 g with number-average mol. weight 21,200 and weight-average mol. weight 41,500.

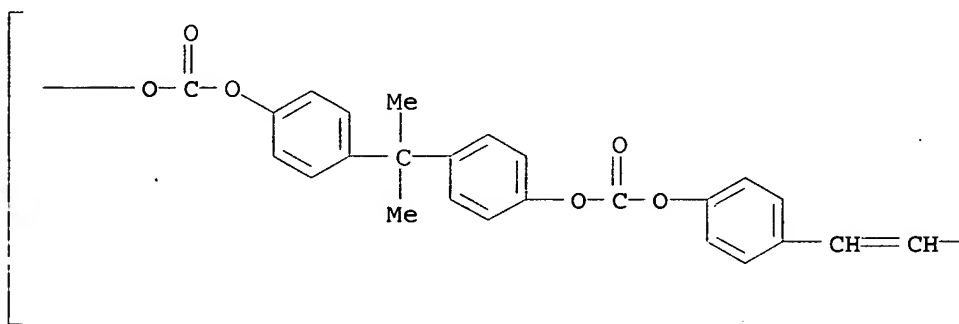
IT 221238-26-2P

(aromatic polycarbonate resin as photosensitive material in electrog.)

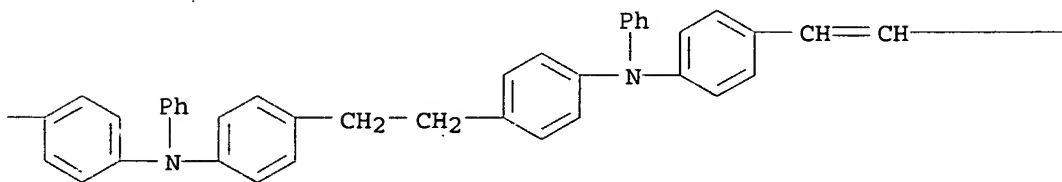
RN 221238-26-2 HCAPLUS

CN Poly[oxy-carbonyloxy-1,4-phenylene(1-methylethylidene)-1,4-phenyleneoxy-carbonyloxy-1,4-phenylene-1,2-ethenediyl-1,4-phenylene(phenylimino)-1,4-phenylene-1,2-ethenediyl-1,4-phenylene(phenylimino)-1,4-phenylene-1,2-ethenediyl-1,4-phenylene]  
(9CI) (CA INDEX NAME)

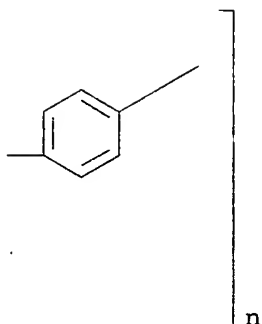
PAGE 1-A



PAGE 1-B



PAGE 1-C



IC ICM C08G064-12  
 CC 35-5 (Chemistry of Synthetic High Polymers)  
 IT 221238-20-6P 221238-26-2P 221238-33-1P 221238-40-0P  
 221238-45-5P 221238-49-9P 221238-54-6P 221238-57-9P  
 221238-62-6P 221238-67-1P  
 (aromatic polycarbonate resin as photosensitive material in  
 electrog.)

L18 ANSWER 33 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1998:788688 HCAPLUS

DOCUMENT NUMBER: 130:73799

TITLE: Electrophotographic photoconductor and  
 aromatic polycarbonate resin for use therein

INVENTOR(S): Adachi, Chihaya; Sasaki, Masaomi; Nagai,  
 Kazukiyo; Shimada, Tomoyuki; Tanaka, Chiaki;  
 Tamoto, Nozomu; Katayama, Akira; Anzai,  
 Mitsutoshi; Imai, Akihiro; Morooka, Katsuhiko  
 PATENT ASSIGNEE(S): Ricoh Company, Ltd., Japan; Hodogawa Chemical  
 Co., Ltd.

SOURCE: U.S., 33 pp.  
 CODEN: USXXAM

DOCUMENT TYPE: Patent  
 LANGUAGE: English

FAMILY ACC. NUM. COUNT: 7

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
US 5846680	A	19981208	US 1996-770684	1996 1219
JP 09221544	A2	19970826	JP 1996-336002	1996 1216
JP 3357557	B2	20021216		
JP 09265201	A2	19971007	JP 1996-338295	1996 1218
JP 3558803	B2	20040825		
JP 09268164	A2	19971014	JP 1997-12652	

1997  
0127

&lt;--

JP 3544811  
US 5910561B2  
A20040721  
19990608

US 1998-84100

1998  
0526

&lt;--

PRIORITY APPLN. INFO.:

JP 1995-330479

A

1995  
1219

&lt;--

JP 1996-9408

A

1996  
0123

&lt;--

JP 1996-14098

A

1996  
0130

&lt;--

JP 1996-336002

A

1996  
1216

&lt;--

JP 1996-338295

A

1996  
1218

&lt;--

JP 1995-327364

A

1995  
1215

&lt;--

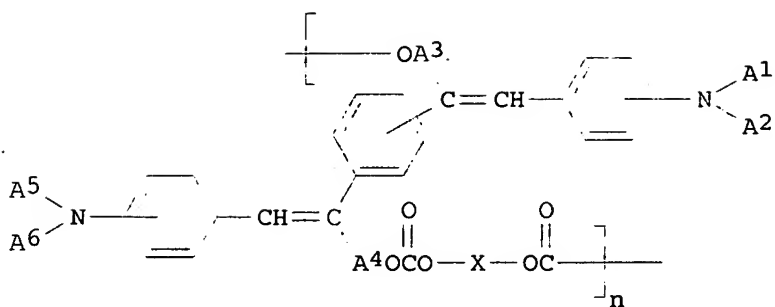
US 1996-770684

A3

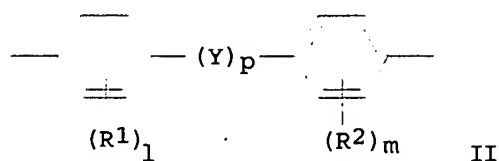
1996  
1219

&lt;--

GI



I



II

AB An electrophotog. photoconductor includes an electroconductive support and a photoconductive layer formed thereon containing as an effective component an aromatic polycarbonate resin having a repeat unit of formula I ( $n$  = an integer of 5-5000; A1, A2, A5, A6 = an aromatic hydrocarbon or heterocyclic group which may have a substituent group; A3, A4 = a bivalent aromatic hydrocarbon or heterocyclic group which may have a substituent group; X = a bivalent aliphatic or cyclic aliphatic group or II where R1, R2 = an alkyl or aromatic hydrocarbon group which may have a substituent group or a halogen atom;  $l, m$  = an integer of 0-4;  $p = 0$  or 1 and when  $p = 1$ , Y = an alkylene group having 1-12 C atoms, O, S, SO, SO<sub>2</sub>, CO, CO<sub>2</sub>ZOCO, or  $-(CH_2)_a[Si(R_3)(R_4)O]_bSi(R_3)(R_4)(CH_2)_a-$  where Z = a bivalent aliphatic group;  $a$  = an integer of 0-20;  $b$  = an integer of 1-2000; R3, R4 = an alkyl or aromatic hydrocarbon group which may have a substituent group).

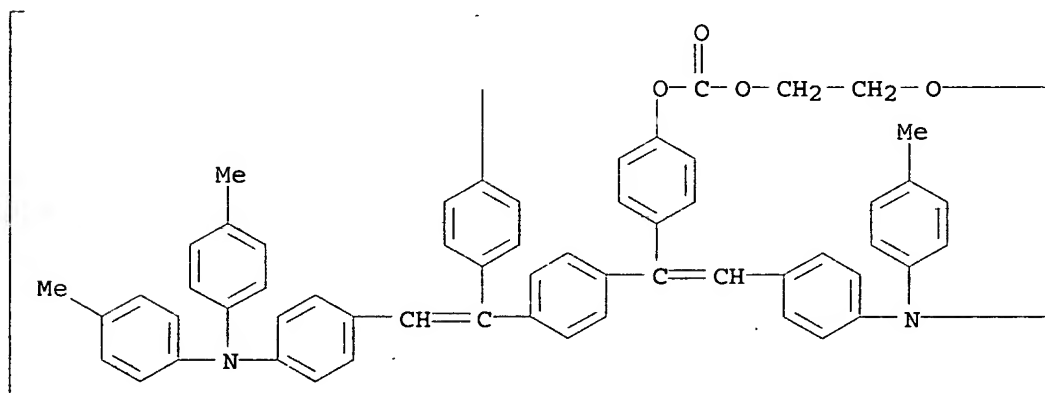
IT 195872-69-6P

(preparation and use in preparing electrophotog. photoreceptors)

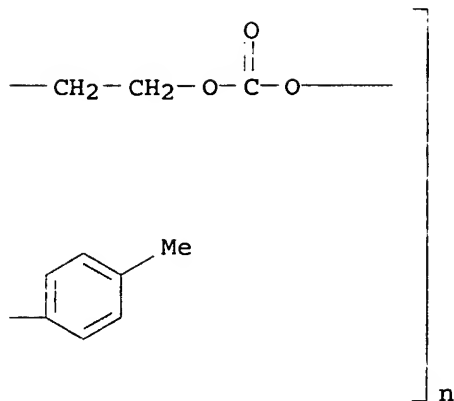
RN 195872-69-6 HCAPLUS

CN Poly[oxy-carbonyloxy-1,2-ethanediyl-oxy-1,2-ethanediyl-oxy-carbonyloxy-1,4-phenylene[[4-[bis(4-methylphenyl)amino]phenyl]ethenylidene]-1,4-phenylene[[4-[bis(4-methylphenyl)amino]phenyl]ethenylidene]-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM G03G005-06

INCL 430073000

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 195872-66-3P 195872-69-6P 195872-76-5P

195872-78-7P 195872-84-5P 200950-71-6P

217634-69-0P 217634-70-3P

(preparation and use in preparing electrophotog. photoreceptors)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE  
FOR THIS RECORD. ALL CITATIONS AVAILABLE  
IN THE RE FORMAT

L18 ANSWER 34 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1998:627448 HCAPLUS

DOCUMENT NUMBER: 129:308504

TITLE: Electrophotographic photoreceptor containing triarylamine-containing polycarbonate

INVENTOR(S): Suzuki, Tetsuo; Niimi, Tatsuya; Shimada, Tomoyuki

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 50 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10254156	A2	19980925	JP 1997-74645	1997 0312
JP 11024297	A2	19990129	JP 1998-76437	1998 0311
US 5853935	A	19981229	US 1998-41040	1998 0312

PRIORITY APPLN. INFO.: <--  
 JP 1997-74639 A 1997  
 0312  
 <--  
 JP 1997-74645 A 1997  
 0312  
 <--  
 JP 1998-76436 A 1998  
 0311  
 <--  
 JP 1998-76437 A 1998  
 0311

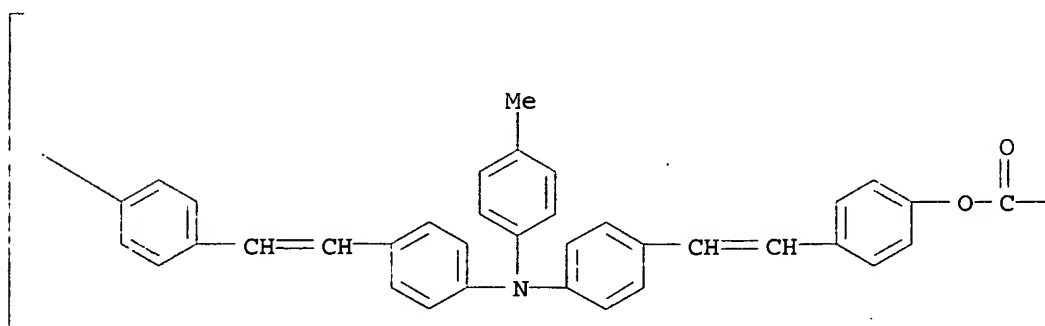
AB The title photoreceptor comprises a conductive support and a photosensitive layer containing a charge-generating agent (p-Cp2N:NC6H4)n201N(C6H4N:NCp1Am201Ar203NAr201Ar202-p)3-n201 [Cp1 = divalent coupler residue; Cp2 = monovalent coupler residue; Ar201, Ar202 = (un)substituted aryl; Ar203 = (un)substituted arylene; A = ethylene, vinylene, O, S; m201, n201 = 0-2] and a polycarbonate having a triarylamine structure in its principal and/or side chain. The photoreceptor shows high photosensitivity, low residual potential, and good abrasion resistance.

IT 195974-85-7  
 (electrophotog. photoreceptor containing trisazo charge-generating agent and polycarbonate charge-transporting agent)

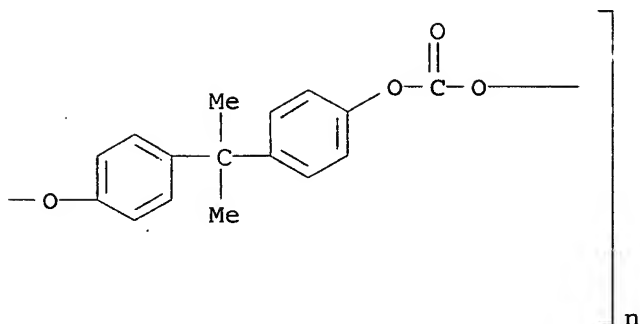
RN 195974-85-7 HCAPLUS

CN Poly[oxycarbonyloxy-1,4-phenylene(1-methylethylidene)-1,4-phenyleneoxycarbonyloxy-1,4-phenylene-1,2-ethenediyl-1,4-phenylene[(4-methylphenyl)imino]-1,4-phenylene-1,2-ethenediyl-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



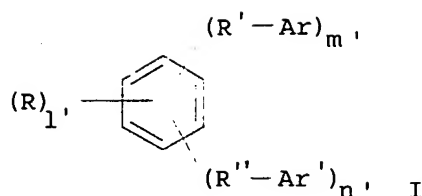
PAGE 1-B



IC ICM G03G005-06  
 ICS G03G005-05; G03G005-07  
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and  
 Other Reprographic Processes)  
 Section cross-reference(s): 38  
 IT 184018-35-7 195974-85-7 200950-24-9 201154-31-6  
 201600-39-7 201600-40-0 207454-73-7  
 214415-56-2 214415-57-3 214415-58-4 214415-59-5  
 214415-61-9  
 (electrophotog. photoreceptor containing trisazo charge-generating  
 agent and polycarbonate charge-transporting agent)

L18 ANSWER 35 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1998:204394 HCAPLUS  
 DOCUMENT NUMBER: 128:315075  
 TITLE: Electrophotographic photoreceptor.  
 INVENTOR(S): Kishida, Koji; Suzuki, Tetsuo; Kami,  
 Hidetoshi; Ota, Shoichi; Suzuki, Yasuo; Niimi,  
 Tatsuya; Tamura, Hiroshi  
 PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 43 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10083090	A2	19980331	JP 1997-148594	1997 0522
PRIORITY APPLN. INFO.: <-- JP 1996-150488 A 1996 0523				
OTHER SOURCE(S): MARPAT 128:315075 <--				
GI				



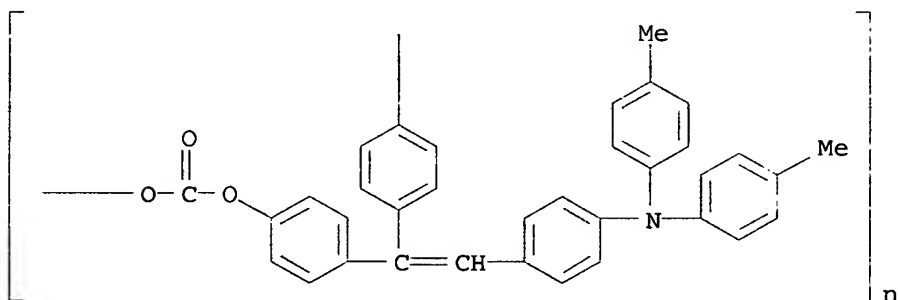
AB The electrophotog. photoreceptor comprises a charge generating layer and a charge transporting layer on a support, wherein the charge transporting layer comprises a polycarbonate resin having a triarylamino group in the main or side chain and compound I (R = low alkyl; R' and R'' = methine, ethylene; Ar and Ar' = aryl; I' = 0-4 integer; m' or n' = 0-2 integer; m' + n' ≥ 2 integer; I' + m' + n' = ≥ 6 integer). The photoreceptor shows the good anti-friction and high sensitivity because of the light attenuation curve having a steep decrease at the end area, and repeatedly provides a stable image because of the little charged voltage fluctuation.

IT 198983-20-9

(charge transporting layer for electrophotog. photoreceptor)

RN 198983-20-9 HCAPLUS

CN Poly[oxycarbonyloxy-1,4-phenylene[[4-[bis(4-methylphenyl)amino]phenyl]ethenylidene]-1,4-phenylene] (9CI) (CA INDEX NAME)



IC ICM G03G005-07

ICS C08G064-04; C08L069-00; G03G005-05

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 15742-67-3 15742-68-4 120359-10-6 152849-03-1 160380-07-4

174830-28-5 177330-62-0 178889-17-3 198983-20-9

200423-26-3 200423-68-3 200950-38-5 200950-62-5

201135-07-1 201154-41-8 201158-19-2 201158-20-5

201337-58-8 201353-57-3 201356-76-5 206346-36-3

(charge transporting layer for electrophotog. photoreceptor)

L18 ANSWER 36 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1998:8687 HCAPLUS

DOCUMENT NUMBER: 128:134353

TITLE: Photoconductive aromatic polycarbonate containing stilbene pendent group for electron-transporting agent in electrophotographic photoreceptor



INVENTOR(S): Tanaka, Chiaki; Sasaki, Masaomi; Nagai, Kazukiyo; Shimada, Tomoyuki; Adachi, Chihaya; Katayama, Akira; Anzai, Mitsushi; Morooka, Katsuhiro

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan; Hodogaya Chemical Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.  
CODEN: JKXXAF

DOCUMENT TYPE: Patent

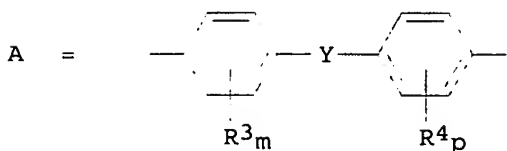
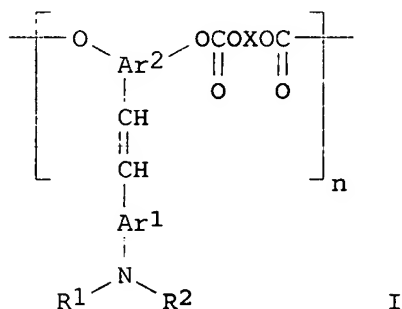
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09328539	A2	19971222	JP 1996-170621	1996 0610
JP 3500485	B2	20040223	<--	
PRIORITY APPLN. INFO.:			JP 1996-170621	1996 0610

GI



AB The polycarbonate has a repeating unit I [R1, R2 = (substituted) alkyl, (substituted) aromatic hydrocarbon, (substituted) heterocycle; Ar1 = divalent (substituted) aromatic hydrocarbon, preferably phenylene; Ar2 = trivalent (substituted) aromatic hydrocarbon, preferably phenylene; n = 2-5000; X = divalent aliphatic hydrocarbon, divalent alicyclic, A; R3-6 = (substituted) alkyl, (substituted)

aromatic hydrocarbon, halo; m, p = 0-4; Y = none, C1-12 (branched or cyclic) alkylene, O, S, SO, SO<sub>2</sub>, CO, CO<sub>2</sub>ZOCO; Z = divalent aliphatic group, (CH<sub>2</sub>)<sub>a</sub>(R<sub>5</sub>R<sub>6</sub>SiO)<sub>b</sub>R<sub>5</sub>R<sub>6</sub>Si(CH<sub>2</sub>)<sub>a</sub>; a = 0-30; b = 1-2000], preferably [OAr<sub>2</sub>(CH:CHAr<sub>1</sub>NR<sub>1</sub>R<sub>2</sub>)OCO]<sub>k</sub> and (OXOCO)<sub>j</sub> with 0 < k/(k + j) ≤ 1. The polycarbonate shows high photocond. to be useful as electron-transporting agents in electrophotog. photoreceptors.

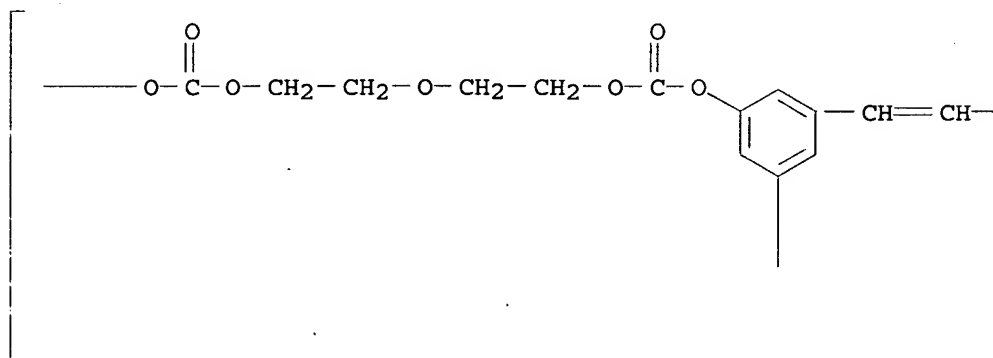
IT 201746-26-1P

(photoconductive aromatic polycarbonates containing stilbene pendent group for electron-transporting agent in electrophotog. photoreceptor)

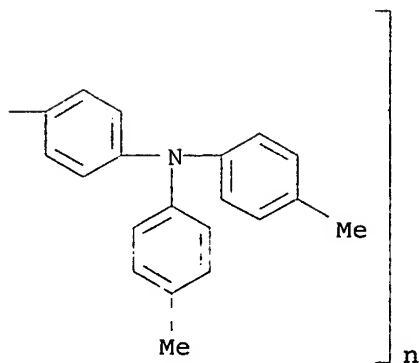
RN 201746-26-1 HCAPLUS

CN Poly[oxycarbonyloxy-1,2-ethanediylloxy-1,2-ethanediylloxycarbonyloxy[5-[2-[4-[bis(4-methylphenyl)amino]phenyl]ethenyl]-1,3-phenylene]] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM C08G064-16

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 35, 38

IT 201746-24-9P 201746-25-0P 201746-26-1P  
 (photoconductive aromatic polycarbonates containing stilbene pendent  
 group for electron-transporting agent in electrophotog.  
 photoreceptor)

L18 ANSWER 37 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:796185 HCAPLUS

DOCUMENT NUMBER: 128:121703

TITLE: Manufacture of electrophotographic  
 photoreceptor using triarylamine-containing  
 polycarbonate charge-transporting substance

INVENTOR(S): Suzuki, Tetsuo; Tamura, Hiroshi; Arami,  
 Tatsuya; Ikuno, Hiroshi; Aoto, Atsushi;  
 Nagame, Hiroshi; Kojima, Shigeto; Kami,  
 Hidenori

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	---	-----	-----	
JP 09319124	A2	19971212	JP 1996-151817	1996 0524

PRIORITY APPLN. INFO.: <--  
 JP 1996-151817

1996  
0524

AB In manufacturing the title photoreceptor comprising a conductive support  
 laminated with a charge-generating layer and a charge-transporting  
 layer, the later layer is formed by coating a polymer  
 charge-transporting layer based on a polycarbonate resin having a  
 triarylamine structure in its main chain and/or side chain  
 followed by drying at  $\geq 150^\circ$ . The photoreceptor may  
 be manufactured by laminating a charge-generating layer and a  
 charge-transporting layer based on the polycarbonate resin on a  
 conductive support and drying the resulting photoreceptor at  
 $\geq 150^\circ$ . The photoreceptor shows high abrasion  
 resistance and suppresses the rise of potential on the exposed  
 area in repeated use. Thus, an Al drum coated with an undercoat  
 layer and a charge-generating layer containing a bisazo pigment was  
 coated with a solution of polycarbonate resin [OC6H4-p-CMe(C6H4-p-  
 N(C6H4-p-Me)2]C6H4-p-OCO2(CH2CH2O)2CO)n and dried at  $150^\circ$   
 to form a charge-transporting layer to give a photoreceptor.

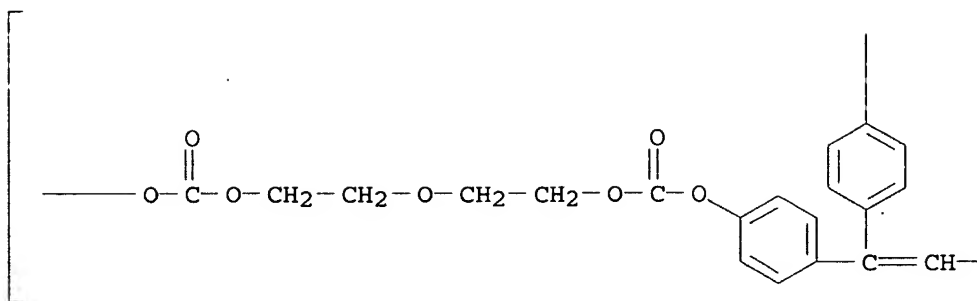
IT 198983-05-0

(manufacture of electrophotog. photoreceptor containing  
 charge-transporting triarylamine-containing polycarbonate)

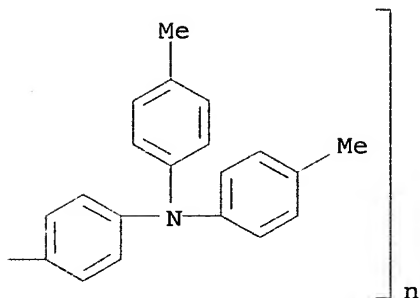
RN 198983-05-0 HCAPLUS

CN Poly[oxycarbonyloxy-1,2-ethanedioxy-1,2-ethanedioxycarbonyloxy-  
 1,4-phenylene][4-[bis(4-methylphenyl)amino]phenyl]ethenylidene]-  
 1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM G03G005-07  
ICS G03G005-00  
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 38  
IT 160380-07-4 174830-28-5 184363-43-7 190383-48-3  
190383-51-8 191926-48-4 191926-49-5 198983-05-0  
198983-07-2 201135-07-1 201205-91-6 201419-91-2  
201536-74-5 201536-75-6 201536-76-7  
(manufacture of electrophotog. photoreceptor containing charge-transporting triarylamine-containing polycarbonate)

L18 ANSWER 38 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:796184 HCAPLUS

DOCUMENT NUMBER: 128:108430

TITLE: Electrophotographic photoreceptor using polycarbonate charge-transporting agent

INVENTOR(S): Kishida, Koshi; Tamura, Hiroshi; Arami, Tatsuya; Suzuki, Tetsuo; Kami, Hidenori

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 129 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

KIND

DATE

APPLICATION NO.

DATE

JP 09319122

A2

19971212

JP 1996-151815

1996

0524

PRIORITY APPLN. INFO.:

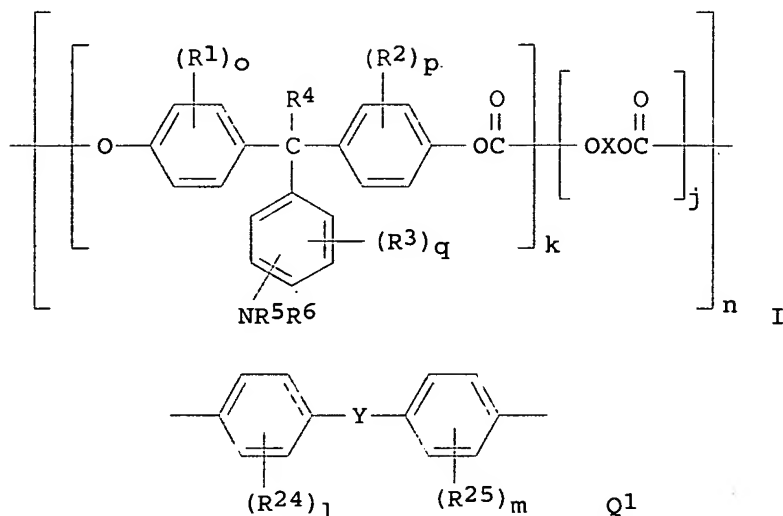
JP 1996-151815

1996

0524

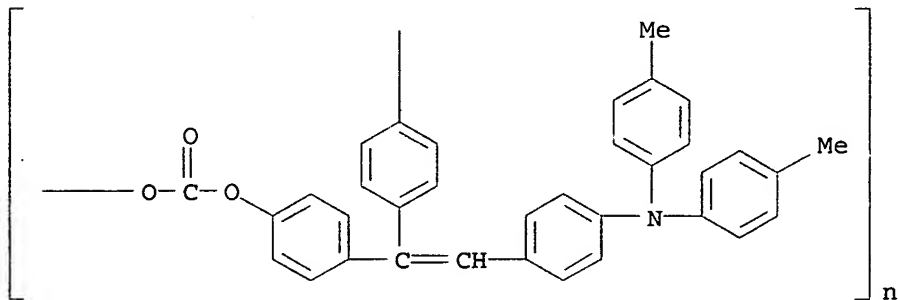
OTHER SOURCE(S):  
GI

MARPAT 128:108430



AB The title photoreceptor comprises a conductive support coated with a photosensitive layer containing a charge-generating agent, a low-mol.-weight charge-transporting agent, and a polymer charge-transporting agent I [R1-3 = (substituted) alkyl or halo; R4 = H or (substituted) alkyl; R5-6 = (substituted) aryl; o, p, q = 0-4; 0.1 ≤ k ≤ 1; 0 ≤ j ≤ 0.9; n = 5-5000; X = divalent (cyclic) aliphatic group, Q1 [R24, R25 = (substituted) alkyl, aryl, halo; l, m = 0-4; Y = single bond, C1-12 straight chain, branched or cyclic alkylene, O, S, SO, SO2, CO, CO2ZOCO (Z = divalent aliphatic group)], (CH2)a(SiR26R27O)bSiR26R27(CH2)a [a = 1-20; b = 1-2000; R26, R27 = (substituted) alkyl or aryl]]. The polymer charge-transporting agent may be [[OAr2C(:CHAR1NR3R4)Ar3OCO]k(OXOCO)j]n, [[OAr4C(:CHCH:CHAR6NR5R6)Ar5OCO]k(OXOCO)j]n, [[OAr7CH((CH2)rAr9NR7R8)Ar8OCO]k(OXOCO)j]n, II, [[OAr15(Y1Ar13NR11R12)Y3Ar16(Y2Ar14NR13R14)OCO]k(OXOCO)j]n, [[OAr18N(Ar17CH:CR15R16)Ar19OCO]k(OXOCO)j]n, [(OAr20CH:CHAR21NR17Ar22CH:CHAR23OCO)k(OXOCO)j]n, [[OAr24C(:CHAR27NR18R19)Ar25C(:CHAR28NR20R21)Ar26OCO]k(OXOCO)j]n or [(OAr29NR22Ar30NR23Ar31OCO)k(OXOCO)j]n [R3-14, R17-23 = (substituted) aryl; R15, R16 = H or (substituted) aryl, R15 and R16 may form a ring; Ar1-31 = arylene; Y1-3 = single bond, (substituted) alkylene, (substituted) cycloalkylene, (substituted) alkylene ether, O, S, vinylene; X1, X2 = (substituted) ethylene or vinylene; r = 1-5; X, k, j, and n are same meanings as shown in I]. The photoreceptor shows high abrasion resistance in repeated

use, high photosensitivity, and low residual potential.  
 IT 198983-20-9  
 (electrophotog. photoreceptor using polycarbonate and  
 low.-mol.-weight charge-transporting agents)  
 RN 198983-20-9 HCAPLUS  
 CN Poly[oxy-carbonyloxy-1,4-phenylene[[4-[bis(4-  
 methylphenyl)amino]phenyl]ethenylidene]-1,4-phenylene] (9CI) (CA  
 INDEX NAME)



IC ICM G03G005-07  
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and  
 Other Reprographic Processes)  
 IT 82-90-6 1679-98-7 13511-11-0 15008-36-3 20441-06-9  
 65181-78-4 71530-63-7 73276-71-8 75232-44-9 79096-23-4  
 79096-24-5 84271-48-7 84687-99-0 88740-81-2 88740-82-3  
 89114-90-9 124373-59-7 129970-69-0 129988-45-0 131625-67-7  
 133637-75-9 138796-27-7 139451-71-1 142773-15-7  
 157244-37-6 174830-28-5 184104-78-7 198983-20-9  
 201056-39-5 201056-63-5 201136-22-3 201148-52-9  
 201154-28-1 201337-04-4 201337-49-7 201337-51-1  
 201353-27-7 201354-75-8 201356-83-4 201362-35-8  
 201362-36-9 201362-38-1 201362-42-7 201362-43-8  
 201362-45-0 201362-46-1 201362-47-2  
 (electrophotog. photoreceptor using polycarbonate and  
 low.-mol.-weight charge-transporting agents)

L18 ANSWER 39 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:796179 HCAPLUS

DOCUMENT NUMBER: 128:121701

TITLE: Electrophotographic photoreceptor using  
 polymer charge-transporting agent

INVENTOR(S): Tamura, Hiroshi; Suzuki, Tetsuo; Ikino, Hong;  
 Nagame, Hiroshi; Aoto, Atsushi; Kojima,  
 Shigeto; Arami, Tatsuya; Kami, Hidenori

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 46 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09319112	A2	19971212	JP 1996-151812	

1996  
0524

PRIORITY APPLN. INFO.:

<--  
JP 1996-1518121996  
0524

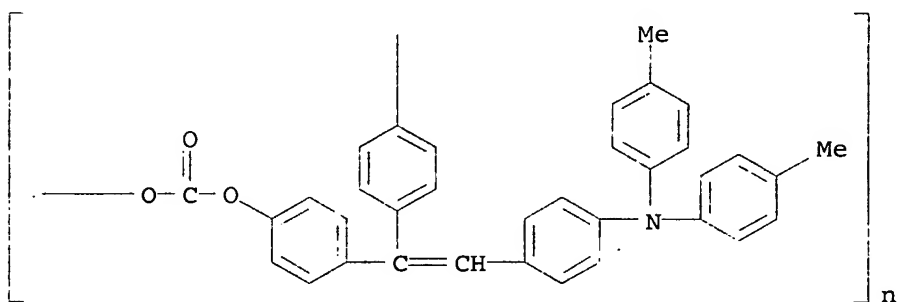
AB The title photoreceptor comprises a conductive support coated with a photosensitive layer containing a charge-generating agent, a polymer charge-transporting agent, and a hindered amine compound. The photoreceptor shows high abrasion resistance in repeated use, resistance to reactive gases, and charging properties.

IT 198983-20-9

(electrophotog. photoreceptor containing polymer charge-transporting agent and hindered amine)

RN 198983-20-9 HCAPLUS

CN Poly[oxycarbonyloxy-1,4-phenylene[[4-[bis(4-methylphenyl)amino]phenyl]ethenylidene]-1,4-phenylene] (9CI) (CA INDEX NAME)



IC ICM G03G005-07

ICS G03G005-05

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 120359-10-6 160380-07-4 173072-53-2 174829-96-0  
 174830-33-2 178889-17-3 198983-20-9 200423-27-4  
 200950-32-9 200950-55-6 200950-62-5 201135-07-1  
 201136-22-3 201148-52-9 201158-20-5 201300-43-8  
 201337-49-7 201337-58-8 201361-79-7 201362-38-1  
 201423-16-7 201423-26-9

(electrophotog. photoreceptor containing polymer charge-transporting agent and hindered amine)

L18 ANSWER 40 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:796176 HCAPLUS

DOCUMENT NUMBER: 128:108424

TITLE: Electrophotographic photoreceptor using polymer charge-transporting substance

INVENTOR(S): Tamura, Hiroshi; Suzuki, Tetsuo; Ikino, Hiroshi; Nagame, Hiroshi; Aoto, Atsushi; Kojima, Shigeto; Arami, Tatsuya; Kami, Eri

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 43 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09319106	A2	19971212	JP 1996-151810	1996 0524

PRIORITY APPLN. INFO.:

<--  
JP 1996-151810

1996  
0524

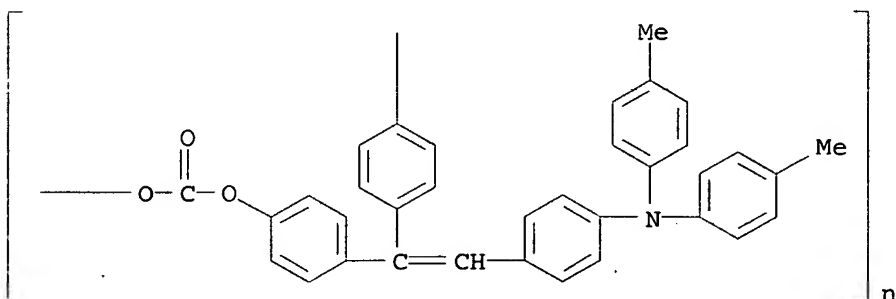
AB The title photoreceptor comprises a conductive support coated with a photosensitive layer containing a charge-generating substance, a polymer charge-transporting substance, and a compound having hindered amine and hindered phenol structures in its mol. The photoreceptor shows high abrasion resistance in repeated use, resistance to reactive gases, and charging properties.

IT 198983-20-9

(electrophotog. photoreceptor containing polymer charge-transporting agent and compound with hindered amine and phenol groups)

RN 198983-20-9 HCAPLUS

CN Poly[oxy carbonyloxy-1,4-phenylene[[4-[bis(4-methylphenyl)amino]phenyl]ethenylidene]-1,4-phenylene] (9CI) (CA INDEX NAME)



IC ICM G03G005-05

ICS G03G005-07

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 120359-10-6 160380-07-4 173072-53-2 174829-96-0  
174830-33-2 178889-17-3 198983-20-9 200423-27-4  
200950-32-9 200950-55-6 200950-62-5 201135-07-1  
201136-22-3 201148-52-9 201158-20-5 201300-43-8  
201337-49-7 201337-58-8 201361-79-7 201362-38-1  
201423-16-7 201423-26-9

(electrophotog. photoreceptor containing polymer charge-transporting agent and compound with hindered amine and phenol groups)

L18 ANSWER 41 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:796175 HCAPLUS

DOCUMENT NUMBER: 128:108423



TITLE: Electrophotographic photoreceptor containing polycarbonate in charge-transporting layer  
 INVENTOR(S): Suzuki, Tetsuo; Kishida, Hiroshi; Kami, Hidenori; Tamura, Hiroshi; Shoshi, Masayuki; Arami, Tatsuya  
 PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 40 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09319104	A2	19971212	JP 1996-151811	1996 0524

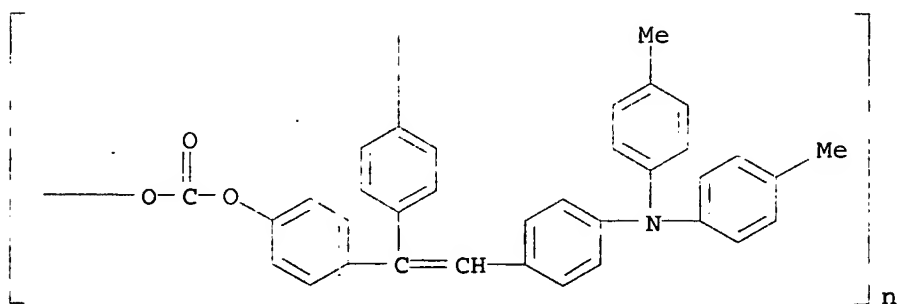
PRIORITY APPLN. INFO.: JP 1996-151811  
 1996 0524

AB The title photoreceptor comprises a conductive support laminated with a charge-generating layer and a charge-transporting layer which is based on a polycarbonate resin having triarylamino groups in its principal or side chain and contains an electron acceptor compound. The photoreceptor shows high abrasion resistance in repeated use, high photosensitivity, and low residual potential.

IT 198983-20-9  
 (electrophotog. photoreceptor containing polycarbonate having triarylamino group as charge-transporting agent)

RN 198983-20-9 HCAPLUS

CN Poly[oxycarbonyloxy-1,4-phenylene[[4-[bis(4-methylphenyl)amino]phenyl]ethenylidene]-1,4-phenylene] (9CI) (CA INDEX NAME)



IC ICM G03G005-05

ICS G03G005-07

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT	120359-10-6	160380-07-4	174830-28-5	178889-17-3
	198983-20-9	200950-25-0	200950-62-5	201135-07-1
	201136-22-3	201148-52-9	201154-28-1	201158-20-5
	201353-50-6	201353-51-7	201353-53-9	201353-57-3

201354-59-8 201354-72-5 201354-74-7 201354-75-8  
201354-77-0

(electrophotog. photoreceptor containing polycarbonate having  
triarylamino group as charge-transporting agent)

L18 ANSWER 42 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:794051 HCAPLUS

DOCUMENT NUMBER: 128:108410

TITLE: Electrophotographic photoreceptor using  
polycarbonate charge-transporting agent

INVENTOR(S): Tamura, Hiroshi; Suzuki, Tetsuo; Niimi,  
Tatsuya; Kishida, Koshi; Kami, Hidetoshi

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 69 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
JP 09319123	A2	19971212	JP 1996-151809	1996 0524

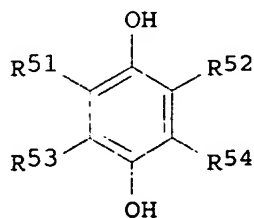
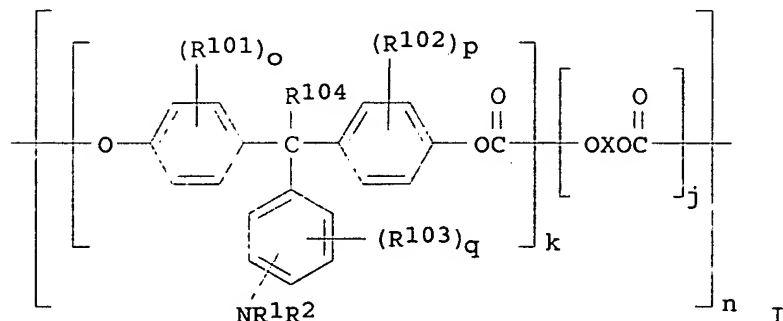
PRIORITY APPLN. INFO.:

<--  
JP 1996-151809

1996  
0524

<--

GI



II

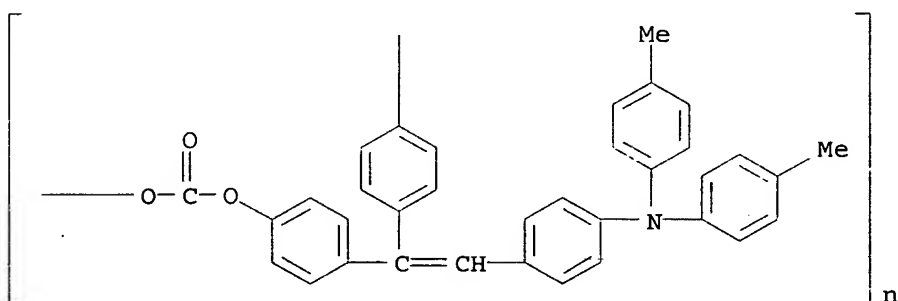
AB The title photoreceptor comprises a conductive support coated with a photosensitive layer containing a charge-generating agent, a polymer charge-transporting agent I [R101-103 = (substituted) alkyl or halo; R104 = H or (substituted) alkyl; R1, R2 = (substituted) aryl; o, p, q = 0-4;  $0.1 \leq k \leq 1$ ;  $0 \leq j \leq 0.9$ ; n = 5-5000; X = divalent (cyclic) aliphatic group, Q1 [R24, R25 = (substituted) alkyl, aryl, halo; l, m = 0-4; Y = single bond, C1-12 straight chain, branched or cyclic alkylene, O, S, SO, SO2, CO, CO2ZOCO (Z = divalent aliphatic group)], (CH2)a(SiR26R27O)bSiR26R27(CH2)a [a = 1-20; b = 1-2000; R26, R27 = (substituted) alkyl or aryl]], and a phenolic compound II [R51- 54 = H, (cyclic) alkyl, aryl]. Other specific polymer charge-transporting agents and phenolic compds. are also claimed. The photoreceptor shows high abrasion resistance in repeated use, resistance to reactive gases, and charging properties.

IT 198983-20-9

(electrophotog. photoreceptor containing polycarbonate charge-transporting agent and phenolic compound)

RN 198983-20-9 HCAPLUS

CN Poly[oxycarbonyloxy-1,4-phenylene[[4-[bis(4-methylphenyl)amino]phenyl]ethenylidene]-1,4-phenylene] (9CI) (CA INDEX NAME)



IC ICM G03G005-07

ICS G03G005-047

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT	120359-10-6	157244-37-6	160380-01-8	160380-07-4
	162780-86-1	171852-90-7	173072-53-2	174829-94-8
	174829-96-0	174830-01-4	174830-04-7	174830-28-5
	174830-33-2	178889-17-3	190383-48-3	191926-49-5
	198983-20-9	200423-27-4	200423-28-5	200863-48-5
	200863-50-9	200950-15-8	200950-25-0	200950-36-3
	200950-55-6	200950-62-5	200950-67-0	201056-39-5
	201056-63-5	201135-07-1	201136-22-3	201148-52-9
	201154-28-1	201154-41-8	201158-19-2	201158-20-5
	201205-91-6	201205-96-1	201205-98-3	201300-43-8
	201337-49-7	201337-51-1	201337-58-8	201353-50-6
	201353-53-9	201354-58-7	201354-72-5	201354-74-7
	201354-75-8	201356-83-4	201357-10-0	201361-80-0
	201362-38-1	201419-91-2	201423-12-3	201423-13-4
	201423-14-5	201423-15-6	201423-16-7	201423-17-8
	201423-18-9	201423-19-0	201423-20-3	201423-21-4
	201423-23-6	201423-24-7	201423-25-8	201423-26-9
	201423-27-0	201423-28-1	201423-30-5	201423-31-6
	201423-32-7	201423-33-8		

(electrophotog. photoreceptor containing polycarbonate  
charge-transporting agent and phenolic compound)

L18 ANSWER 43 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:794047 HCAPLUS

DOCUMENT NUMBER: 128:121696

TITLE: Monolayer-type electrophotographic  
photoreceptor

INVENTOR(S): Suzuki, Tetsuo; Tamura, Hiroshi; Kojima,  
Shigeto; Niimi, Tatsuya; Aoto, Jun; Nagame,  
Hiroshi; Ikino, Hiroshi; Kami, Hidetoshi

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 28 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 09319115	A2	19971212	JP 1996-151818	1996 0524

PRIORITY APPLN. INFO.: <--  
JP 1996-151818

1996  
0524

AB The title photoreceptor comprises a conductive support coated  
directly or through an undercoat layer with a monolayer  
photosensitive layer containing a charge-generating substance, a  
polycarbonate having a triarylamine structure in its principal  
chain and/or side chain, and an organic electron accepting compound  
The photoreceptor is pos. and neg. chargeable and shows high  
photosensitivity and abrasion resistance in repeated use.

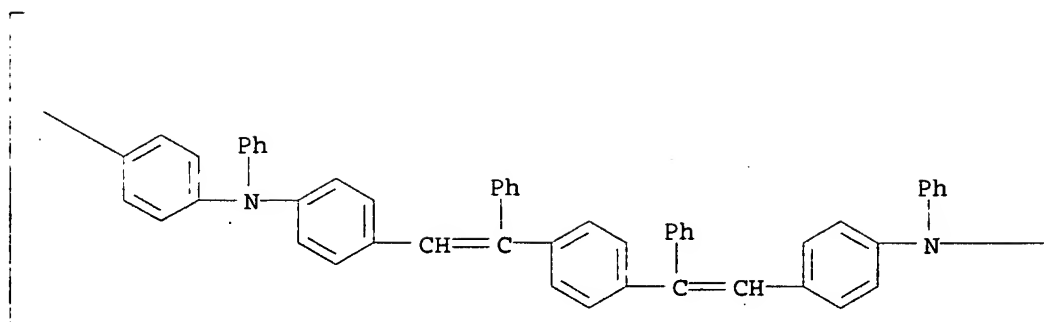
IT 201600-38-6

(electrophotog. photoreceptor containing polycarbonate with  
arylamine group and electron acceptor)

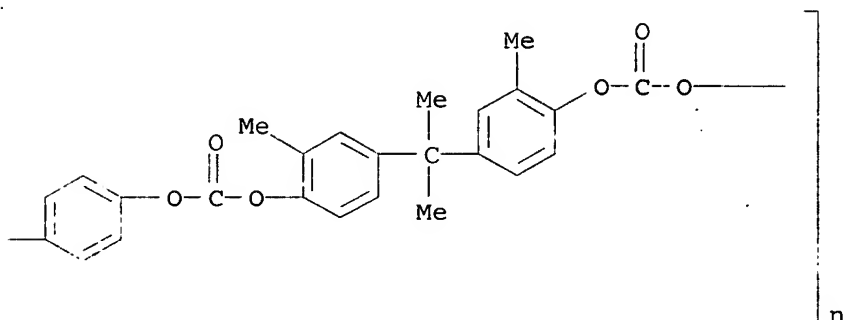
RN 201600-38-6 HCAPLUS

CN Poly[oxycarbonyloxy(2-methyl-1,4-phenylene)(1-methylethylidene)(3-  
methyl-1,4-phenylene)oxycarbonyloxy-1,4-phenylene(phenylimino)-1,4-  
phenylene(2-phenyl-1,2-ethenediyl)-1,4-phenylene(1-phenyl-1,2-  
ethenediyl)-1,4-phenylene(phenylimino)-1,4-phenylene] (9CI) (CA  
INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM G03G005-07  
ICS G03G005-05  
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
IT 2455-14-3 67834-69-9 93376-18-2 150639-07-9 176178-78-2  
199943-34-5 200863-48-5 200950-24-9 201056-07-7  
201056-11-3 201205-91-6 201337-05-5 201353-54-0  
201419-94-5 201600-37-5 **201600-38-6**  
201600-39-7 201600-40-0 201600-41-1  
201600-42-2 201600-43-3  
(electrophotog. photoreceptor containing polycarbonate with arylamine group and electron acceptor)

L18 ANSWER 44 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:765523 HCAPLUS

DOCUMENT NUMBER: 128:108384

TITLE: Image-forming apparatus using electrophotographic photoreceptor containing polymer charge-transporting substance

INVENTOR(S): Tamura, Hiroshi; Suzuki, Tetsuo; Nagame, Hiroshi; Kojima, Shigeto; Aoto, Atsushi; Shinmi, Tatsuya; Ikino, Hiroshi; Kami, Hidetoshi

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 32 pp.

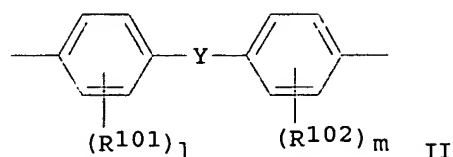
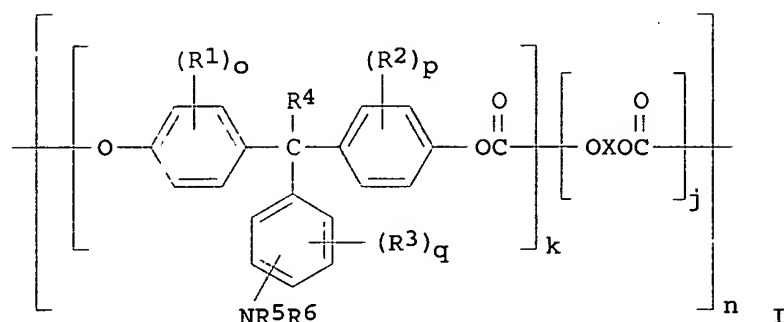
CODEN: JKXXAF

DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09311480	A2	19971202	JP 1996-148567	1996 0520

PRIORITY APPLN. INFO.: <-- JP 1996-148567  
 1996  
 0520

GI

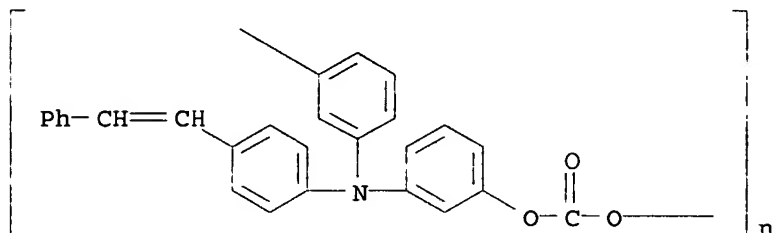


AB In the title apparatus having a rubber blade for cleaning powder toner an electrophotog. photoreceptor containing a polymer charge-transporting substance in its uppermost layer is used. The polymer charge-transporting substance may be I [R1-3 = (substituted) alkyl or halo; R4 = H or (substituted) alkyl; R5, R6 = (substituted) aryl; o, p, q = 0-4; 0.1 ≤ k ≤ 1; 0 ≤ j ≤ 0.9; n = 5-5000; X = divalent (cyclic) aliphatic group, II {R101, R102 = (substituted) alkyl, aryl, halo; l, m = 0-4; Y = single bond, C1-12 alkylene, O, S, SO, SO2, CO, CO2ZOCO (Z = divalent aliphatic group)}, (CH2)a(SiR103R104O)bSiR103R104(CH2)a {a = 1-20; b = 1-2000; R103, R104 = (substituted) alkyl or aryl}]. The photoreceptor shows high photosensitivity, durability, and cleaning properties in repeated use by using the apparatus

IT 201205-98-3

(charge-transporting layer; electrophotog. photoreceptors having uppermost layer containing polymer charge-transporting compound)

RN 201205-98-3 HCAPLUS  
 CN Poly[oxy carbonyloxy-1,3-phenylene[[4-(2-phenylethenyl)phenyl]imino]-1,3-phenylene] (9CI) (CA INDEX NAME)



IC ICM G03G005-07  
 ICS G03G013-00; G03G015-22  
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 Section cross-reference(s): 38  
 IT 200423-28-5 201056-07-7 201056-13-5 201205-84-7  
 201205-91-6 201205-92-7 201205-93-8 201205-95-0  
 201205-96-1 201205-97-2 201205-98-3  
 (charge-transporting layer; electrophotog. photoreceptors having uppermost layer containing polymer charge-transporting compound)

L18 ANSWER 45 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:762092 HCAPLUS

DOCUMENT NUMBER: 128:95339

TITLE: Electrophotographic apparatus using photoreceptor having polymer charge-transporting material

INVENTOR(S): Kami, Hidetoshi; shinmi, Tatsuya; Kojima, Shigeto; Suzuki, Tetsuro; Tamura, Hiroshi; Nagame, Hiroshi; Ikino, Hiroshi

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 32 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

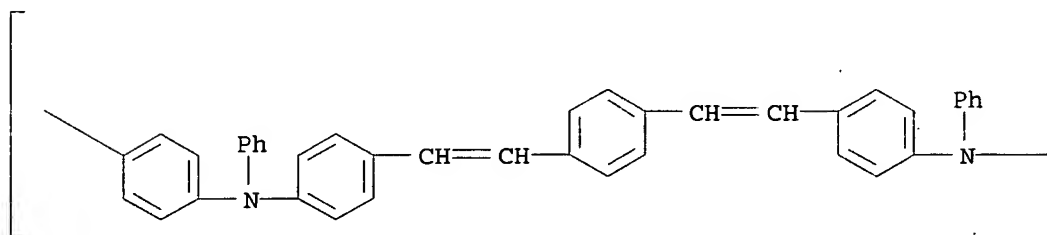
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09305083	A2	19971128	JP 1996-146515	1996 0517
JP 3565463	B2	20040915	JP 1996-146515	1996 0517

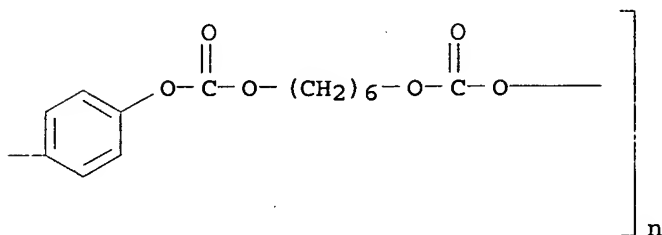
AB The apparatus has a cleaner for removal of ions generated by corona discharge and a means of moving the cleaner for intermittently contacting with a photoreceptor. Ammonium ions, nitrate ions, etc. adsorbed on the photoreceptor were easily removed.

IT 191926-60-0  
 (electrophotog. apparatus using photoreceptor having polymer charge-transporting material)  
 RN 191926-60-0 HCAPLUS  
 CN Poly[oxy-carbonyloxy-1,6-hexanediyl-oxy-carbonyloxy-1,4-phenylene(phenylimino)-1,4-phenylene-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl-1,4-phenylene(phenylimino)-1,4-phenylene] (9CI)  
 (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM G03G021-10  
 ICS G03G005-07  
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 Section cross-reference(s): 38  
 IT 160380-07-4 189441-69-8 189441-70-1 189451-36-3  
 191926-45-1 191926-60-0 192566-24-8  
 195974-78-8 200207-60-9 201135-07-1 201135-08-2  
 201135-09-3 201135-10-6 201135-11-7 201135-12-8  
 201135-13-9  
 (electrophotog. apparatus using photoreceptor having polymer charge-transporting material)

L18 ANSWER 46 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:762069 HCAPLUS

DOCUMENT NUMBER: 128:95332

TITLE: Electrophotographic imaging apparatus with improved durability in repeated use

INVENTOR(S): Arami, Tatsuya; Nagame, Hiroshi; Tamura, Hiroshi; Kojima, Shigeto; Aoto, Jun; Suzuki, Tetsuro; Ikino, Hiroshi; Kami, Hidetoshi

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 39 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent



LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09304954	A2	19971128	JP 1996-146506	1996 0517
JP 3558146	B2	20040825	JP 1996-146506	1996 0517

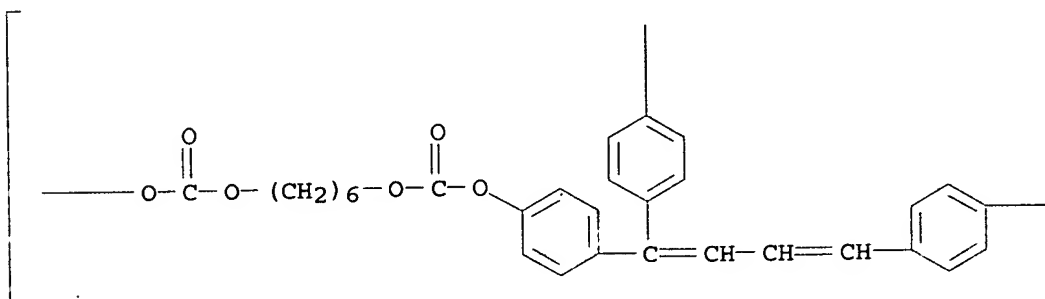
PRIORITY APPLN. INFO.: <--

AB The apparatus taking  $\leq 0.1$  s from the initiation to the termination of the imaging process comprises an elec. conductive support coated with an electrophotog. layer containing a charge-generating agent and a polymeric charge-transporting agent with carrier mobility  $\geq 1 + 10^{-5}$  cm<sup>2</sup>/V-s at 3 + 105 V/cm. The apparatus shows good abrasion resistance and improved durability in repeated use.

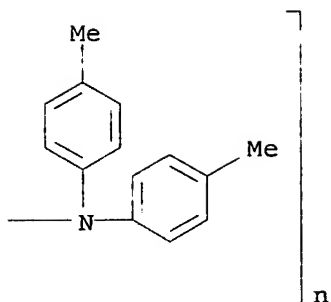
IT 189451-34-1  
 (electrophotog. imaging apparatus containing charge-transporting agent with high carrier mobility showing improved durability in repeated use)

RN 189451-34-1 HCAPLUS  
 CN Poly[oxy-carbonyloxy-1,6-hexanediyl-oxy-carbonyloxy-1,4-phenylene[4-[4-[bis(4-methylphenyl)aminolphenyl]-1,3-butadienylidene]-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM G03G005-07

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38

IT 184874-74-6 189451-34-1 189451-42-1 191926-47-3  
 195974-66-4 198983-20-9 200207-66-5  
 201140-89-8 201148-51-8 201148-52-9 201148-55-2  
 201148-58-5 201148-60-9 201148-63-2 201148-66-5  
 201148-71-2 201148-72-3 201148-74-5  
 201148-77-8

(electrophotog. imaging apparatus containing charge-transporting agent with high carrier mobility showing improved durability in repeated use)

L18 ANSWER 47 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:745924 HCAPLUS

DOCUMENT NUMBER: 128:82120

TITLE: Electrophotographic photoreceptor with high-sensitivity and superior durability  
 INVENTOR(S): Nagai, Kazukiyo; Sasaki, Masa'omi; Tamura, Hiroshi; Suzuki, Tetsuro; Shimada, Tomoyuki; Adachi, Chihaya; Tanaka, Chiaki; Katayama, Akira; Tamoto, Nozomi; Kishida, Koji; Anzai, Mitsutoshi; Imai, Akihiro

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan; Hodogaya Chemical Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 48 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

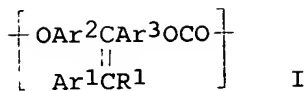
FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09297419	A2	19971118	JP 1996-167556	1996 0627
US 5840454	A	19981124	US 1996-666947	1996 0620
US 6018014	A	20000125	US 1998-58131	

			1998 0410
	<--		
PRIORITY APPLN. INFO.:	JP 1995-165962	A	1995 0630
	<--		
	JP 1996-45995	A	1996 0304
	<--		
	JP 1995-178194	A	1995 0621
	<--		
	JP 1995-180794	A	1995 0623
	<--		
	JP 1995-267786	A	1995 0921
	<--		
	JP 1996-45555	A	1996 0207
	<--		
	JP 1996-45556	A	1996 0207
	<--		
	US 1996-666947	A3	1996 0620
	<--		

GI



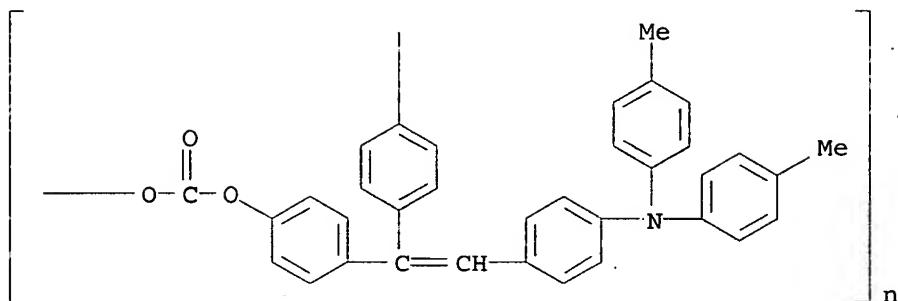
AB The title photoreceptor has a photosensitive layer containing an aromatic polycarbonate resin I (R1 = H, alkyl, aryl; Ar1 = aryl; Ar2, Ar3 = arylene;) on an elec. conductive support. The polycarbonate resin has charge-transporting ability and shows high mech. strength.

IT 198983-20-9P

(prepared and contained in photosensitive layer for electrophotog. photoreceptor)

RN 198983-20-9 HCAPLUS

CN Poly[oxycarbonyloxy-1,4-phenylene[[4-[bis(4-methylphenyl)amino]phenyl]ethenylidene]-1,4-phenylene] (9CI) (CA INDEX NAME)



IC ICM G03G005-07  
ICS C08G064-04  
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
IT 198983-20-9P 198983-61-8P 200423-26-3P 200423-27-4P  
200423-28-5P 200423-29-6P 200423-30-9P 200423-31-0P  
200423-32-1P 200423-33-2P 200423-34-3P 200423-35-4P  
200423-38-7P 200423-39-8P 200423-40-1P 200423-41-2P  
200423-42-3P 200423-43-4P 200423-44-5P 200423-45-6P  
200423-46-7P 200423-47-8P 200423-48-9P 200423-49-0P  
200423-50-3P 200423-51-4P 200423-52-5P 200423-55-8P  
200423-57-0P 200423-59-2P 200423-61-6P 200423-63-8P  
200423-66-1P 200423-68-3P 200423-69-4P 200423-70-7P  
(prepared and contained in photosensitive layer for electrophotog. photoreceptor)

L18 ANSWER 48 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:705930 HCAPLUS

DOCUMENT NUMBER: 128:17331

TITLE: Aromatic polycarbonate resin for charge-transporting material of organic electrophotographic photoreceptor

INVENTOR(S): Nagai, Kazukiyo; Sasaki, Masaomi; Tamura, Hiroshi; Suzuki, Tetsuro; Shimada, Tomoyuki; Adachi, Chihaya; Tanaka, Chiaki; Katayama, Ei; Tamoto, Nozomi; Kishida, koji; Anzai, Mitsutoshi; Imai, Akihiro

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan; Hodogaya Chemical Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 62 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

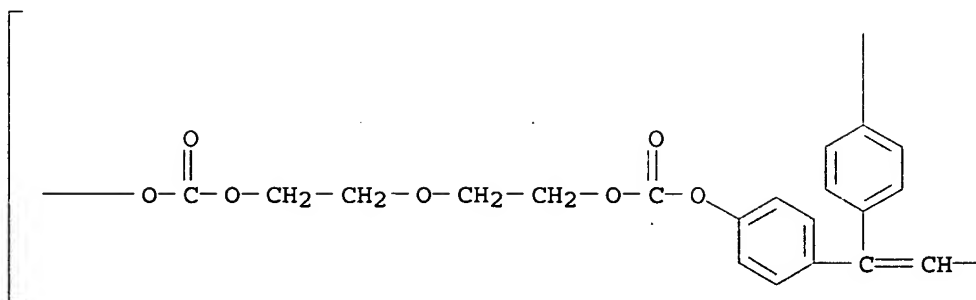
FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

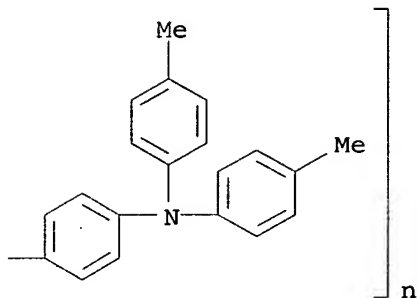
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
JP 09272735	A2	19971021	JP 1996-181601	1996 0621
			<--	
JP 3368415	B2	20030120		
US 5840454	A	19981124	US 1996-666947	1996

				0620
			<--	
US 6018014	A	20000125	US 1998-58131	
				1998
				0410
			<--	
PRIORITY APPLN. INFO.:			JP 1995-178194	A
				1995
				0621
			<--	
			JP 1995-267786	A
				1995
				0921
			<--	
			JP 1996-45555	A
				1996
				0207
			<--	
			JP 1995-180794	A
				1995
				0623
			<--	
			JP 1995-165962	A
				1995
				0630
			<--	
			JP 1996-45556	A
				1996
				0207
			<--	
			JP 1996-45995	A
				1996
				0304
			<--	
			US 1996-666947	A3
				1996
				0620
			<--	
AB	The aromatic polycarbonate resin has structural unit			
	[-OAr2C(:CR1Ar1)Ar3O2C-] (R1 = H, alkyl, aryl; Ar1 = aryl; Ar2,3 =			
	arylene). Addnl. 5 aromatic polycarbonate structures were also			
	claimed.			
IT	198983-05-0P			
	(aromatic polycarbonate resin for charge-transporting material of			
	organic electrophotog. photoreceptor)			
RN	198983-05-0 HCAPLUS			
CN	Poly[oxycarbonyloxy-1,2-ethanediylloxy-1,2-ethanediylloxycarbonyloxy-			
	1,4-phenylene[[4-[bis(4-methylphenyl)amino]phenyl]ethenylidene]-			
	1,4-phenylene] (9CI) (CA INDEX NAME)			

PAGE 1-A



PAGE 1-B



IC ICM C08G064-04  
ICS G03G005-07

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and  
Other Reprographic Processes)  
Section cross-reference(s): 38

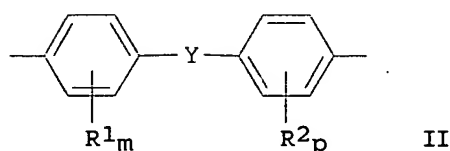
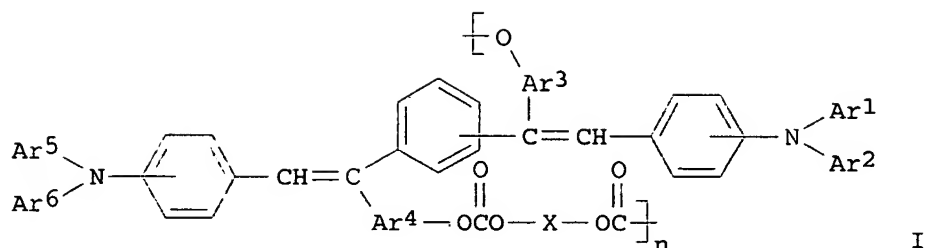
IT 198983-04-9P 198983-05-0P 198983-06-1P  
198983-07-2P 198983-08-3P 198983-09-4P  
198983-10-7P 198983-11-8P 198983-12-9P 198983-13-0P  
198983-14-1P 198983-15-2P 198983-16-3P 198983-17-4P  
198983-18-5P 198983-19-6P 198983-20-9P  
198983-21-0P 198983-23-2P 198983-24-3P 198983-25-4P  
198983-26-5P 198983-27-6P 198983-28-7P 198983-29-8P  
198983-30-1P 198983-31-2P 198983-32-3P  
198983-33-4P 198983-34-5P 198983-35-6P 198983-36-7P  
198983-37-8P 198983-38-9P 198983-39-0P 198983-40-3P  
198983-41-4P 198983-42-5P 198983-43-6P 198983-44-7P  
198983-45-8P 198983-46-9P 198983-49-2P 198983-50-5P  
198983-51-6P 198983-53-8P 198983-54-9P 198983-55-0P  
198983-56-1P 198983-57-2P 198983-58-3P 198983-59-4P  
198983-60-7P 198983-61-8P 198983-62-9P 198983-65-2P  
198983-66-3P 220309-09-1P 255827-76-0P 320339-87-5P  
(aromatic polycarbonate resin for charge-transporting material of  
organic electrophotog. photoreceptor)

L18 ANSWER 49 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1997:681719 HCAPLUS  
DOCUMENT NUMBER: 128:8739  
TITLE: Electrophotographic photoreceptor comprising  
aromatic polycarbonate resin  
INVENTOR(S): Adachi, Chihaya; Sasaki, Masaomi; Anzai,

PATENT ASSIGNEE(S): Mitsutoshi; Murooka, Katsuhiro; Nagai,  
 kazusuga; Shimada, Tomoyuki; Tanaka, Chiaki;  
 SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 7  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09265201	A2	19971007	JP 1996-338295	1996 1218
JP 3558803	B2	20040825	<--	
US 5846680	A	19981208	US 1996-770684	1996 1219
US 5910561	A	19990608	US 1998-84100	1998 0526
PRIORITY APPLN. INFO.:			JP 1996-9408	A 1996 0123
			JP 1995-330479	A 1995 1219
			JP 1996-14098	A 1996 0130
			JP 1996-336002	A 1996 1216
			JP 1996-338295	A 1996 1218
			US 1996-770684	A3 1996 1219
			<--	

GI



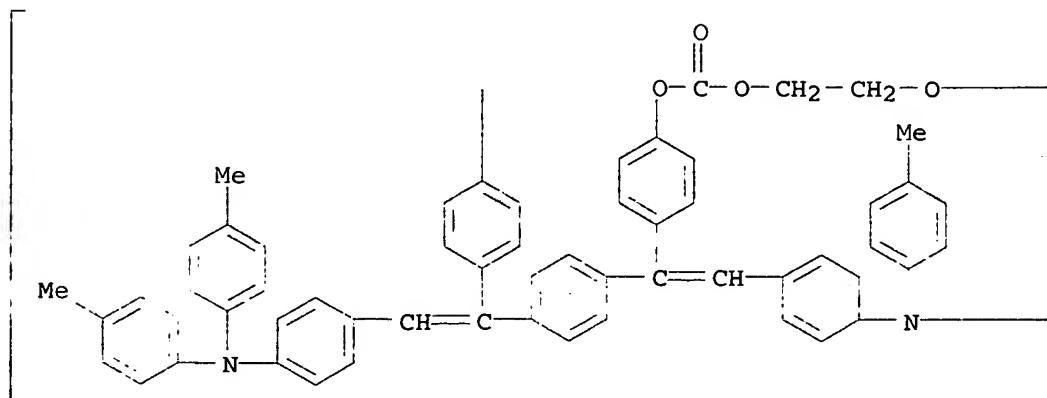
AB The electrophotog. photoreceptor comprises a photosensitive layer containing an aromatic polycarbonate resin of a repeating unit I (  $n = 5-5,000$ ; Ar3-4 = aromatic hydrocarbon divalent group; Ar1-2, Ar5-6 = aromatic hydrocarbon ring, heterocyclic ring; X = aliphatic divalent residue or II (R1-2 = alkyl, aromatic hydrocarbon, halogen atom; m, p = 0-4; Y = single bond C1-12 alkylene, O, S, SO, SO2 or Si-containing group)) on an electroconductive support. The photoreceptor shows high sensitivity and good durability.

IT 195872-69-6P, N',N',N'',N''-Tetra(4-methylphenyl)-1,4-bis[ $\alpha$ -(4-hydroxyphenyl)styryl]benzene-4',4''-diamine-diethylene glycol bischloroformate copolymer, SRU  
(prepared and used in electrophotog. photoreceptor)

RN 195872-69-6 HCAPLUS

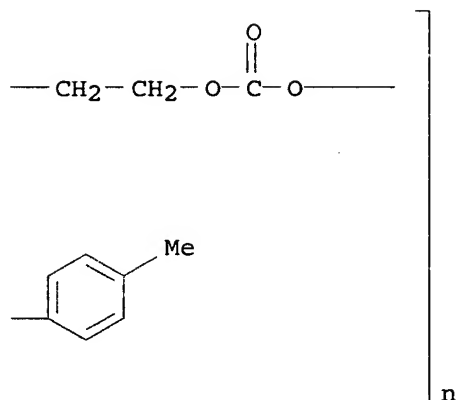
CN Poly[oxycarbonyloxy-1,2-ethanedioxy-1,2-ethanedioxycarbonyloxy-1,4-phenylene[[4-[bis(4-methylphenyl)amino]phenyl]ethenylidene]-1,4-phenylene[[4-[bis(4-methylphenyl)amino]phenyl]ethenylidene]-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A





PAGE 1-B

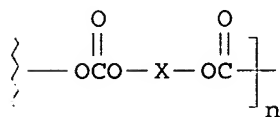
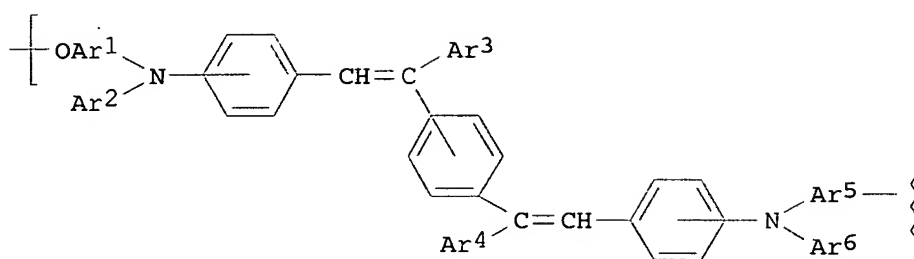


IC ICM G03G005-07  
ICS G03G005-05; C08G064-08; C08L069-00  
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
IT 195872-66-3P, N',N',N'',N''-Tetra(4-methylphenyl)-1,4-bis[  
α-(4-hydroxyphenyl)styryl]benzene-4',4''-diamine-diethylene glycol bischloroformate copolymer **195872-69-6P**,  
N',N',N'',N''-Tetra(4-methylphenyl)-1,4-bis[ α-(4-hydroxyphenyl)styryl]benzene-4',4''-diamine-diethylene glycol bischloroformate copolymer, SRU 195872-73-2P 195872-76-5P  
**195872-78-7P** 195872-81-2P, N',N',N'',N''-Tetra(4-methylphenyl)-1,4-bis[ α-(4-hydroxyphenyl)styryl]benzene-4',4''-diamine-triphosgene copolymer **195872-84-5P**,  
N',N',N'',N''-Tetra(4-methylphenyl)-1,4-bis[-(4-hydroxyphenyl)styryl]benzene-4',4''-diamine-triphosgene copolymer, SRU 195872-86-7P, Bisphenol A-N',N',N'',N''-Tetra(4-methylphenyl)-1,4-bis[α-(4-hydroxyphenyl)styryl]benzene-4',4''-diamine-triphosgene copolymer **198698-57-6P**  
(prepared and used in electrophotog. photoreceptor)

L18 ANSWER 50 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1997:678519 HCAPLUS  
DOCUMENT NUMBER: 128:17327  
TITLE: Electrophotographic photoreceptor with superior high-sensitivity and durability  
INVENTOR(S): Adachi, Chihaya; Sasaki, Masaomi; Anzai, Mitsutoshi; Morooka, Katsuhiko; Nagai, Kazukiyo; Shimada, Tomoyuki; Tanaka, Chiaki; Tamoto, Nozomi; Katayama, Ei  
PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan; Hodogaya Chemical Co., Ltd.  
SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 7  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09265197	A2	19971007	JP 1996-350937	1996 1227
JP 3549350	B2	20040804	<--	
PRIORITY APPLN. INFO.:			JP 1996-10894	A 1996 0125
			<--	

GI



I

AB The title photoreceptor has a photosensitive layer containing an aromatic polycarbonate resin of structure repeating unit I ( $n = 5-5,000$ ; Ar1, Ar5 = aromatic/ or heterocyclic divalent group; Ar2-4,6 = aromatic hydrocarbon, heterocyclyl; X = aliphatic or cyclo aliphatic divalent group) on an elec. conductive support.

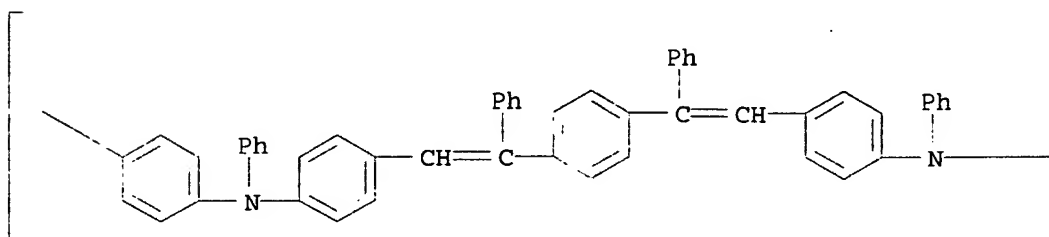
IT 195512-34-6P

(prepared and contained in photosensitive layer for electrophotog. photoreceptor)

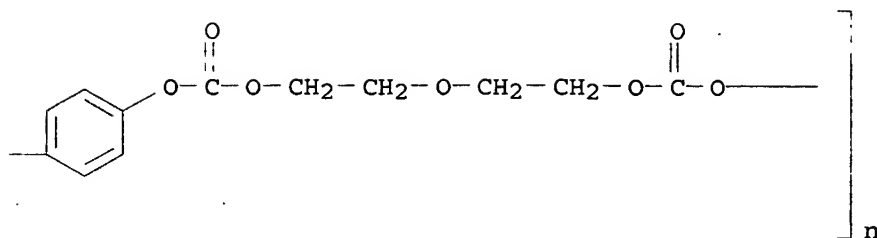
RN 195512-34-6 HCAPLUS

CN Poly[oxycarbonyloxy-1,2-ethanediylloxy-1,2-ethanediylloxycarbonyloxy-1,4-phenylene(phenylimino)-1,4-phenylene(2-phenyl-1,2-ethenediyl)-1,4-phenylene(1-phenyl-1,2-ethenediyl)-1,4-phenylene(phenylimino)-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM G03G005-05  
 ICS C08G064-12; G03G005-07; C08G064-16; C08L069-00  
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and  
 Other Reprographic Processes)  
 IT 195512-33-5P 195512-34-6P 195512-36-8P  
 195512-37-9P 195512-38-0P 195512-39-1P  
 195512-41-5P 195512-43-7P 195512-46-0P  
 195512-47-1P 195512-49-3P 195512-50-6P  
 195512-51-7P 195512-52-8P 195512-53-9P  
 195512-54-0P 195512-58-4P 195512-59-5P  
 195512-61-9P 195512-62-0P 195512-63-1P  
 195512-64-2P 195512-65-3P 195512-66-4P 198629-96-8P  
 198629-97-9P 198629-98-0P 198629-99-1P  
 198630-00-1P 198630-01-2P 198630-03-4P  
 (prepared and contained in photosensitive layer for  
 electrophotog. photoreceptor)

L18 ANSWER 51 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:678503 HCAPLUS

DOCUMENT NUMBER: 127:313109

TITLE: Preparation of dihydroxyl-containing diamines  
for polycarbonate photoconductive materialsINVENTOR(S): Adachi, Chihaya; Sasaki, Masaomi; Anzai,  
Mitsutoshi; Morooka, Katsuhiko; Nagai,  
Kazukiyo; Shimada, Tomoyuki; Tanaka, Chiaki;  
Tamoto, Nozomi; Katayama, Ei  
PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan; Hodogaya Chemical Co.,  
Ltd.SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.  
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 7

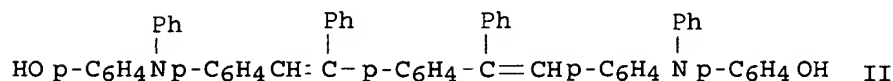
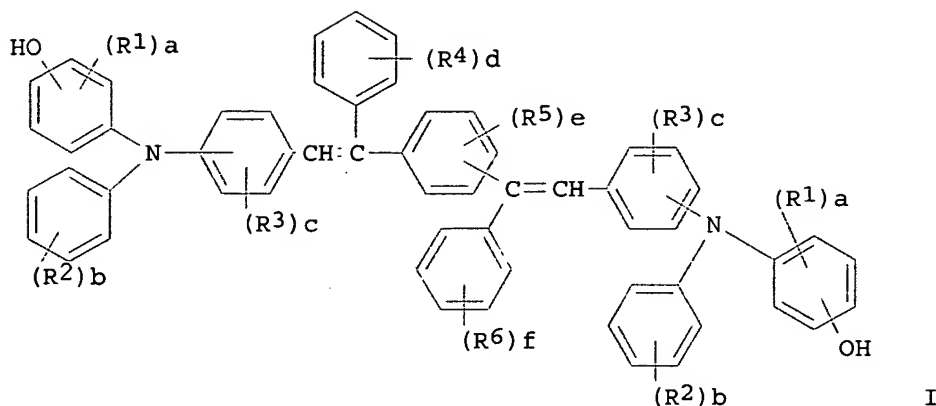
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09263569	A2	19971007	JP 1996-332373	1996 1212
JP 3544805	B2	20040721	JP 1996-10228	1996 0124

PRIORITY APPLN. INFO.: <--

OTHER SOURCE(S):  
GI

MARPAT 127:313109



AB The title compds. [I; R1-R6 = (un)substituted alkyl, halo, (un)substituted aromatic hydrocarbonyl, etc.; a, c, e = 0-4; b, d, f = 0-5] are prepared I are useful as electrophotog. polycarbonate-type resin photoconductive materials. Thus, benzene derivative (II; X = OMe) (preparation given) was treated with EtSNa to give 94.92% the title compound II (X = OH).

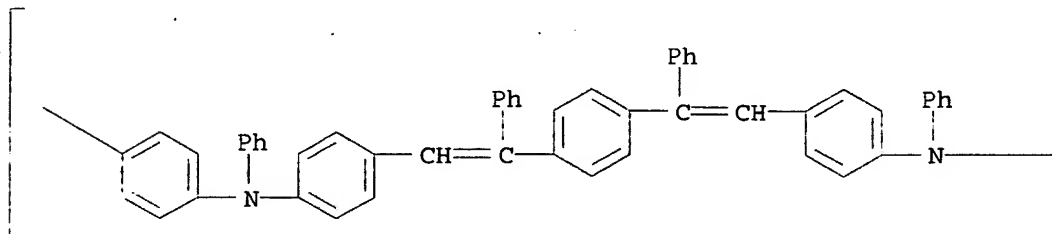
IT 195512-34-6P

(preparation of dihydroxyl-containing diamines for polycarbonate photoconductive materials)

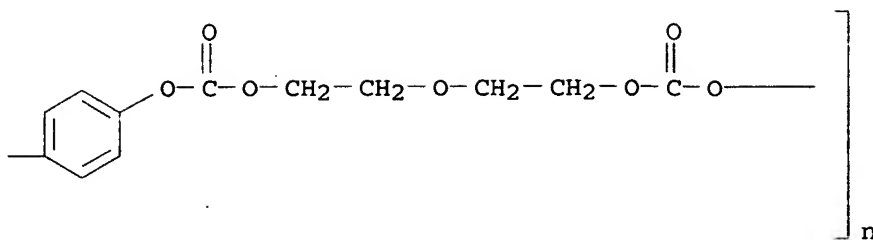
RN 195512-34-6 HCAPLUS

CN Poly[oxycarbonyloxy-1,2-ethanediylloxy-1,2-ethanediylloxycarbonyloxy-1,4-phenylene(phenylimino)-1,4-phenylene(2-phenyl-1,2-ethenediyl)-1,4-phenylene(1-phenyl-1,2-ethenediyl)-1,4-phenylene(phenylimino)-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM C07C215-82  
 ICS G03G005-06  
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and  
 Other Reprographic Processes)  
 IT 195512-32-4P 195512-34-6P 195512-40-4P 195512-45-9P  
 195512-57-3P  
 (preparation of dihydroxyl-containing diamines for polycarbonate  
 photoconductive materials)

L18 ANSWER 52 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:617085 HCAPLUS

DOCUMENT NUMBER: 127:278612

TITLE: Aromatic polycarbonate resins for  
 photoconductive material

INVENTOR(S): Katayama, Ei; Sasaki, Masaomi; Nagai,  
 Kazukiyo; Shimada, Tomoyuki; Adachi, Chihaya;  
 Tanaka, Chiaki; Tamura, Hiroshi; Suzuki,  
 Tetsuro; Tamoto, Nozomi; Kishida, koji; Anzai,  
 Mitsutoshi; Imai, Akihiro

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan; Hodogaya Chemical Co.,  
 Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

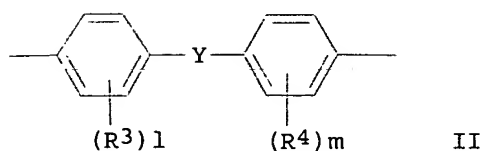
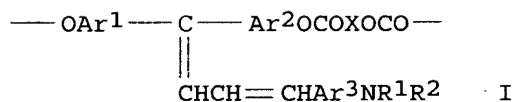
FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09235367	A2	19970909	JP 1996-120298	1996 0515
JP 3352323	B2	20021203	<--	
US 5723243	A	19980303	US 1996-648759	1996 0516
PRIORITY APPLN. INFO.:			JP 1995-177402	A 1995 0713
			JP 1995-336739	A 1995 1225

<--  
 JP 1995-141290 A  
 1995  
 0516  
 <--  
 JP 1995-176189 A  
 1995  
 0712  
 <--  
 JP 1996-120296 A  
 1996  
 0515  
 <--  
 JP 1996-120298 A  
 1996  
 0515  
 <--  
 JP 1996-146601 A  
 1996  
 0516  
 <--

GI



AB Aromatic polycarbonates having structural unit I are synthesized [R<sup>1</sup>, R<sup>2</sup> = acyl, (un)substituted alkyl, (un)substituted aromatic hydrocarbyl, (un)substituted heterocycle; Ar<sup>1</sup>-3 = bivalent aromatic group; X = bivalent aliphatic group, bivalent aliphatic cyclic group, II; R<sup>3</sup>, R<sup>4</sup> = halogen, (un)substituted alkyl, (un)substituted aromatic hydrocarbyl; l, m = 0-4; Y = single bond, C1-12 alkylene, O, S, SO, SO<sub>2</sub>, CO, COOZOCO, siloxane-containing alkylene; Z = bivalent aliphatic hydrocarbyl].

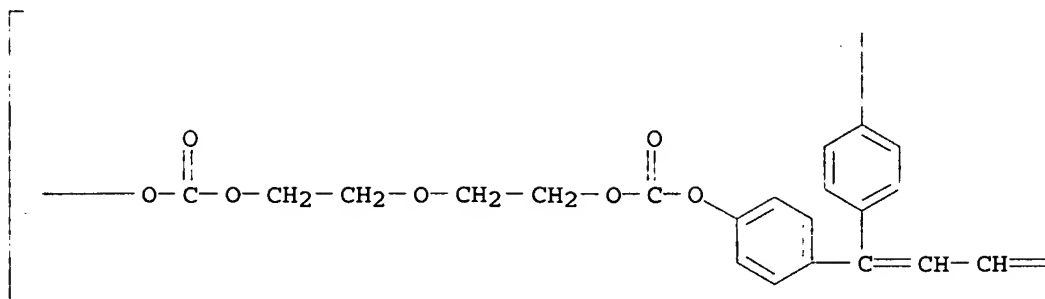
IT 188411-77-0P

(aromatic polycarbonate resins for photoconductive material)

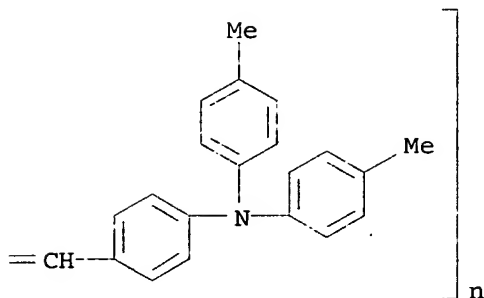
RN 188411-77-0 HCAPLUS

CN Poly[oxycarbonyloxy-1,2-ethanediylloxy-1,2-ethanediylloxycarbonyloxy-1,4-phenylene[4-[4-[bis(4-methylphenyl)amino]phenyl]-1,3-butadienylidene]-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM C08G064-16  
 ICS C08G064-04; C08G064-12  
 CC 35-5 (Chemistry of Synthetic High Polymers)  
 Section cross-reference(s): 74  
 IT 188411-76-9P 188411-77-0P 189451-34-1P  
 189451-35-2P 196314-98-4P 196314-99-5P 196315-01-2P  
 196315-02-3P 196315-03-4P 196315-04-5P 196315-06-7P  
 (aromatic polycarbonate resins for photoconductive material)

L18 ANSWER 53 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:613946 HCAPLUS

DOCUMENT NUMBER: 127:263207

TITLE: Photoconducting tertiary amino group-containing aromatic polycarbonates

INVENTOR(S): Adachi, Chihaya; Sasaki, Masaomi; Anzai, Mitsutoshi; Morooka, Katsuhiko; Nagai, Kazukiyo; Shimada, Tomoyuki; Tanaka, Chiaki; Tamoto, Nozomi; Katayama, Ei

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan; Hodogaya Chemical Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 7

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
-----	----	-----	-----	-----

JP 09227669

A2

19970902

JP 1996-335999

1996

1216

&lt;--

JP 3350381

B2

20021125

JP 1995-330479

A

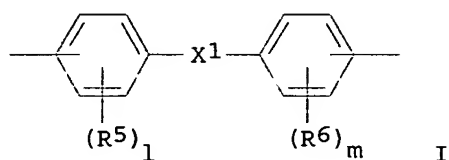
1995

1219

PRIORITY APPLN. INFO.:

&lt;--

GI



AB The title polymers, having good mech. properties, and useful in electrophotog. applications, contain repeating units of [OZ1C(:CHC6H4NR1R2)C6H4C(:CHC6H4NR3R4)Z2O2COXOCO]n [R1-R4 = (un)substituted aromatic hydrocarbon or heterocyclic group; Z1, Z2 = divalent aromatic hydrocarbon or (un)substituted heterocyclic group; X = divalent (cyclo)aliphatic group, I; R5, R6 = halo, (un)substituted alkyl or aromatic hydrocarbyl; X1 = direct bond, C1-12 linear, branched or cyclic alkylene, O, S, SO, SO2, CO, CO2ZOCO, (CH2)a(SiR7R8O)bSiR7R8(CH2)a; R7, R8 = (un)substituted alkyl or aromatic hydrocarbyl; Z = divalent aliphatic hydrocarbon group; a = 0-20; b = 1-2000; l, m = 0-4; n = 5-5000]. Thus, polymerizing N',N'',N''',N''''-tetra(4-methylphenyl)-1,4-bis[(α-(4-hydroxyphenyl))styryl]benzene-4',4''-diamine with diethylene glycol bis(chloroformate) gave a polymer having Tg 145.7°, and Mw 82,000.

IT 195872-69-6P

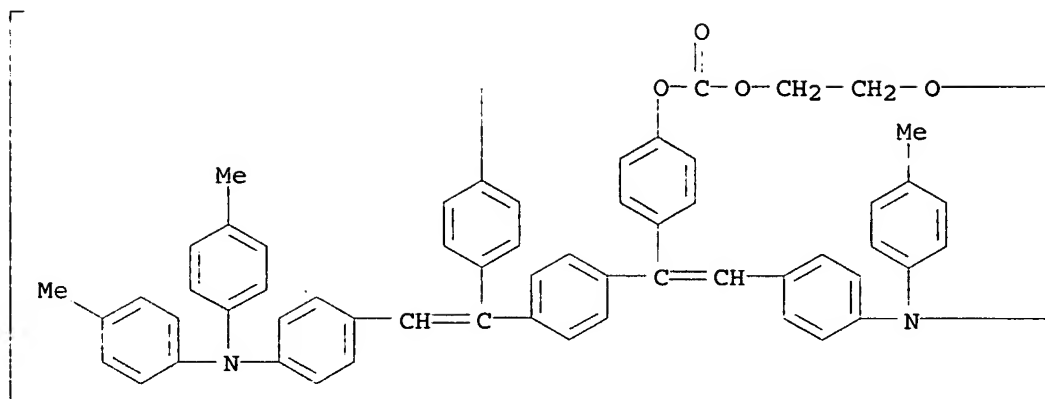
(photoconducting tertiary amino group-containing aromatic polycarbonates with good mech. properties)

RN 195872-69-6 HCAPLUS

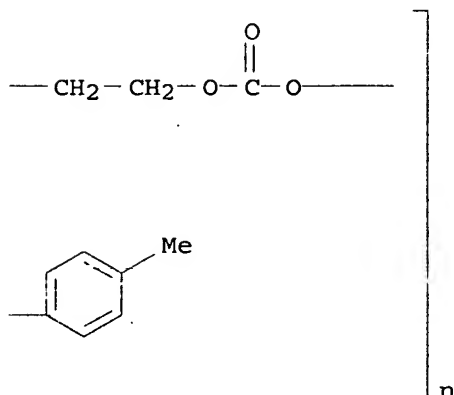
CN Poly[oxy-carbonyloxy-1,2-ethanediyl-oxy-1,2-ethanediyl-oxy-carbonyloxy-1,4-phenylene[[4-[bis(4-methylphenyl)amino]phenyl]ethenylidene]-1,4-phenylene[[4-[bis(4-methylphenyl)amino]phenyl]ethenylidene]-1,4-phenylene] (9CI) (CA INDEX NAME)



PAGE 1-A



PAGE 1-B



IC ICM C08G064-16

ICS C08G064-12

CC 35-5 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 74

IT 195872-66-3P 195872-69-6P 195872-73-2P 195872-76-5P

195872-78-7P 195872-81-2P 195872-84-5P

195872-86-7P

(photoconducting tertiary amino group-containing aromatic polycarbonates with good mech. properties)

L18 ANSWER 54 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:594582 HCAPLUS

DOCUMENT NUMBER: 127:270444

TITLE: Electrophotographic photoreceptor containing charge-transporting polycarbonate resin

INVENTOR(S): Tanaka, Chiaki; Sasaki, Masaomi; Nagai, Kazukiyo; Tamoto, Nozomi; Anzai, Mitsutoshi; Morooka, Katsuhiro; Shimada, Tomoyuki; Adachi, Chihaya; Katayama, Ei

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan; Hodogaya Chemical Co.,

SOURCE: Ltd.  
Jpn. Kokai Tokkyo Koho, 18 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 3  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09222740	A2	19970826	JP 1996-332378	1996 1212
JP 3527817	B2	20040517	JP 1995-327366	1995 1215

AB The photoreceptor comprises on an electroconductive support a photosensitive layer containing an aromatic polycarbonate resin of repeating unit  $-(OAr_1CH=CH[Ar_2N(Ar_5)Ar_3]CH=CHAr_4OCOOXOCO)n-$  ( $n = 5-5,000$ ;  $Ar_1-4$  = divalent aromatic hydrocarbon, heterocyclyl;  $Ar_5$  = aromatic hydrocarbon, heterocyclyl;  $X$  = divalent aliphatic). The photoreceptor using the aromatic polycarbonate resin having a charge-transporting ability exhibited high sensitivity and excellent durability.

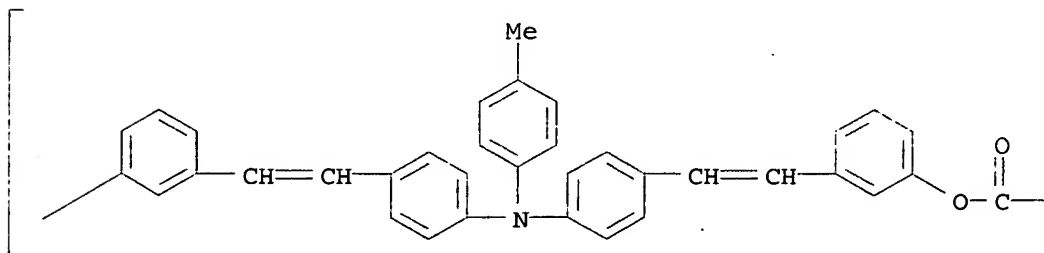
IT 195974-66-4P

(polycarbonate in electrophotog. photoreceptor containing charge-transporting polycarbonate resin)

RN 195974-66-4 HCAPLUS

CN Poly[oxycarbonyloxy-1,2-ethanediyl-1,2-ethanediyl-oxycarbonyloxy-1,3-phenylene-1,2-ethenediyl-1,4-phenylene[(4-methylphenyl)imino]-1,4-phenylene-1,2-ethenediyl-1,3-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



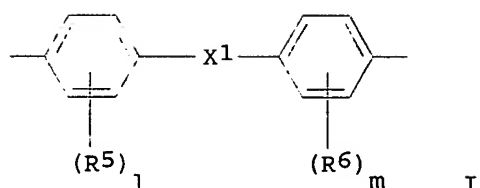
$$\text{---O---CH}_2\text{---CH}_2\text{---O---CH}_2\text{---CH}_2\text{---O---}\overset{\text{O}}{\parallel}\text{C---O---}$$

L18 ANSWER 55 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1997:594567 HCAPLUS  
DOCUMENT NUMBER: 127:248551  
TITLE: Photoconducting tertiary amino  
group-containing aromatic polycarbonates  
INVENTOR(S): Adachi, Chihaya; Sasaki, Masaomi; Anzai,  
Mitsutoshi; Morooka, Katsuhiko; Nagai,  
Kazukiyo; Shimada, Tomoyuki; Tanaka, Chiaki;  
Tamoto, Nozomu; Katayama, Ei  
PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan; Hodogaya Chemical Co.,  
Ltd.  
SOURCE: Jpn. Kokai Tokkyo Koho, 28 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 7  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
-----				
JP 09221544	A2	19970826	JP 1996-336002	1996 1216
			<--	
JP 3357557	B2	20021216		
US 5846680	A	19981208	US 1996-770684	1996 1219
			<--	
US 5910561	A	19990608	US 1998-84100	

			1998 0526
	<--		
PRIORITY APPLN. INFO.:	JP 1995-327364	A	1995 1215
	<--		
	JP 1995-330479	A	1995 1219
	<--		
	JP 1996-9408	A	1996 0123
	<--		
	JP 1996-14098	A	1996 0130
	<--		
	JP 1996-336002	A	1996 1216
	<--		
	JP 1996-338295	A	1996 1218
	<--		
	US 1996-770684	A3	1996 1219
	<--		

GI



AB The title polymers, having good mech. properties, and useful in electrophotog. applications, contain repeating units of [OZ1N(R1)C6H4CH:CR3C6H4CR4:CHC6H4N(R2)Z2O2COXOCO]<sub>n</sub> [R1-R4 = (un)substituted aromatic hydrocarbon or heterocyclic group; Z1, Z2 = divalent aromatic hydrocarbon or (un)substituted heterocyclic group; X = divalent (cyclo)aliphatic group, I; R5, R6 = halo, (un)substituted alkyl or aromatic hydrocarbyl; X1 = direct bond, C1-12 linear, branched or cyclic alkylene, O, S, SO, SO2, CO, CO2ZOCO, (CH2)<sub>a</sub>(SiR7R8O)<sub>b</sub>SiR7R8(CH2)<sub>a</sub>; R7, R8 = (un)substituted alkyl or aromatic hydrocarbyl; Z = divalent aliphatic hydrocarbon group; a = 0-20; b = 1-2000; l, m = 0-4; n = 5-5000]. Thus, polymerizing N',N''-diphenyl-N',N''-bis(4-hydroxyphenyl)-1,4-bis(α-phenylstyryl)benzene-4',4''-diamine with diethylene glycol bis(chloroformate) gave a polymer having Tg 122.5°, and Mw 161,300.

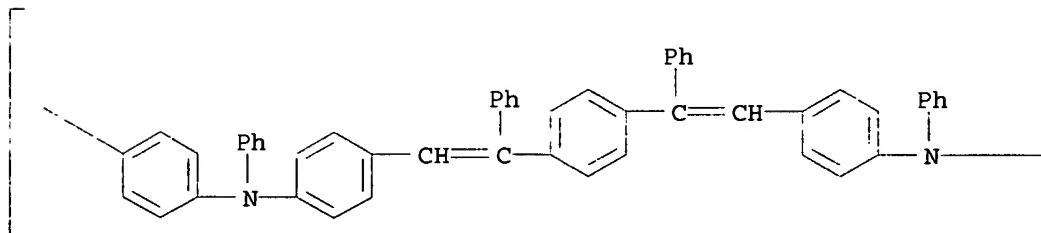
IT 195512-34-6P

(photoconducting tertiary amino group-containing aromatic polycarbonates)

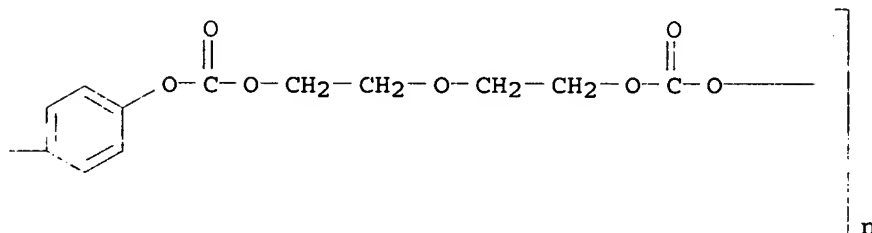
RN 195512-34-6 HCAPLUS

CN Poly[oxy-carbonyloxy-1,2-ethanediyl-oxy-1,2-ethanediyl-oxy-carbonyloxy-1,4-phenylene(phenylimino)-1,4-phenylene(2-phenyl-1,2-ethenediyl)-1,4-phenylene(1-phenyl-1,2-ethenediyl)-1,4-phenylene(phenylimino)-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM C08G064-16

ICS C08G064-12

CC 35-5 (Chemistry of Synthetic High Polymers)

Section cross-reference(s): 74

IT 195512-33-5P 195512-34-6P 195512-35-7P 195512-36-8P

195512-37-9P 195512-38-0P 195512-39-1P

195512-41-5P 195512-43-7P 195512-46-0P

195512-47-1P 195512-48-2P 195512-49-3P

195512-50-6P 195512-51-7P 195512-52-8P

195512-53-9P 195512-54-0P 195512-55-1P

195512-56-2P 195512-58-4P 195512-59-5P

195512-60-8P 195512-61-9P 195512-62-0P 195512-63-1P

195512-64-2P 195512-65-3P 195512-66-4P

(photoconducting tertiary amino group-containing aromatic polycarbonates)

L18 ANSWER 56 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:557777 HCAPLUS

DOCUMENT NUMBER: 127:255304

TITLE: Electrophotographic photoreceptor containing aromatic polycarbonate as charge-transporting agent

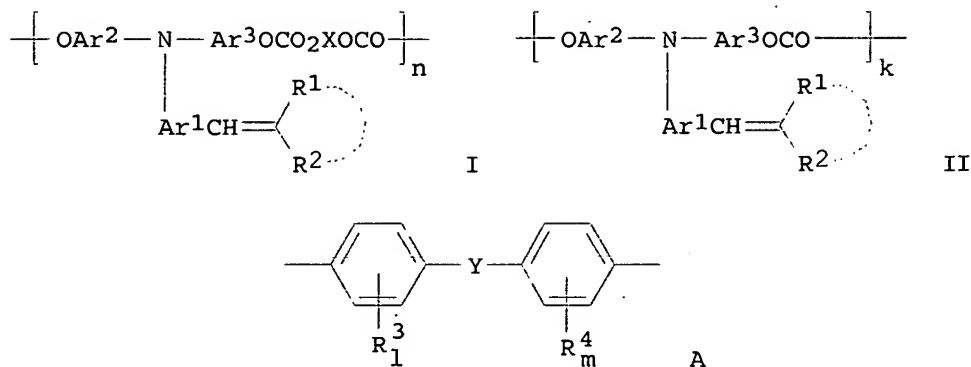
INVENTOR(S): Suzuki, Tetsuro; Sasaki, Masaomi; Nagai, Kazukiyo; Tamura, Hiroshi; Shimada, Tomoyuki; Adachi, Chihaya; Tanaka, Chiaki; Tamoto, Nozomi; Kishida, koji; Katayama, Ei; Anzai,

PATENT ASSIGNEE(S): Mitsutoshi; Morooka, Katsuhiro  
 Ricoh Co., Ltd., Japan; Hodogaya Chemical Co.,  
 Ltd.  
 SOURCE: Jpn. Kokai Tokkyo Koho, 14 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09211877	A2	19970815	JP 1996-15382	1996 0131

PRIORITY APPLN. INFO.: JP 1996-15382  
 1996  
 0131

GI



AB The photoreceptor comprises an elec. conductive support laminated with a photosensitive layer containing aromatic polycarbonate having a aminostilbene unit-containing structural repeating unit (1) I or (2) II and (OXOCO)<sub>j</sub> [n, k = 5-5000; j = 0-5000; 0 < k/(k + j) ≤ 1; Ar<sup>1-3</sup> = divalent aromatic hydrocarbyl, divalent heterocycle; R<sub>1</sub>, R<sub>2</sub> = H, (substituted) aromatic hydrocarbyl, (substituted) heterocycle; R<sub>1</sub> and R<sub>2</sub> may form a ring; X = divalent aliphatic group, divalent alicyclic group, A; R<sub>3</sub>, R<sub>4</sub> = (substituted) alkyl, (substituted) aromatic hydrocarbyl, halo; l, m = 0-4; Y = none, C1-12 linear or branched or cyclic alkylene, O, S, SO, SO<sub>2</sub>, CO, CO<sub>2</sub>ZOCO, (CH<sub>2</sub>)<sub>a</sub>(R<sub>5</sub>R<sub>6</sub>SiO)<sub>b</sub>R<sub>5</sub>R<sub>6</sub>Si(CH<sub>2</sub>)<sub>a</sub>; Z = divalent aliphatic hydrocarbyl; a = 0-20; b = 1-2000; R<sub>5</sub>, R<sub>6</sub> = (substituted) alkyl, (substituted) aromatic hydrocarbyl]. The photoreceptor shows high sensitivity and good durability in repeated use.

IT 192566-24-8P

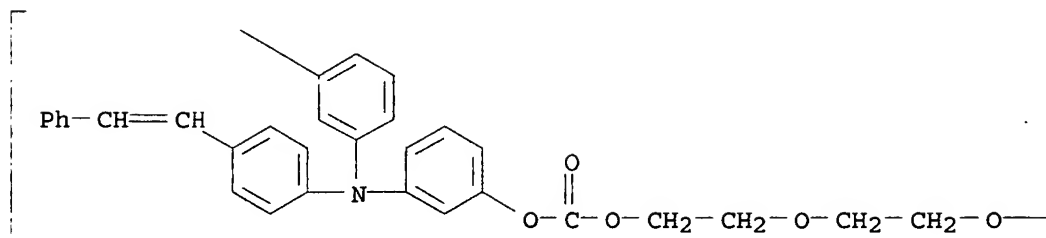
(electrophotog. photoreceptor containing aminostilbene unit-having aromatic polycarbonate as charge-transporting agent)

RN 192566-24-8 HCAPLUS

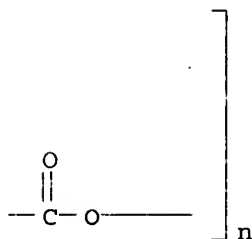
CN Poly[oxycarbonyloxy-1,2-ethanediylloxy-1,2-ethanediylloxycarbonyloxy-1,3-phenylene[[4-(2-phenylethenyl)phenyl]imino]-1,3-phenylene]

(9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM G03G005-07  
ICS C08G064-12  
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 38  
IT 192566-23-7P, 4-[Bis(3-hydroxyphenyl)amino]stilbene-diethylene glycol bischloroformate copolymer 192566-24-8P  
192566-25-9P 192566-52-2P 192566-53-3P  
(electrophotog. photoreceptor containing aminostilbene unit-having aromatic polycarbonate as charge-transporting agent)

L18 ANSWER 57 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:510120 HCAPLUS

DOCUMENT NUMBER: 127:122120

TITLE: Aromatic polycarbonates for photoconducting materials

INVENTOR(S): Suzuki, Tetsuro; Sasaki, Masaomi; Nagai, Kazukiyo; Tamura, Hiroshi; Shimada, Tomoyuki; Adachi, Chihaya; Tanaka, Chiaki; Tamoto, Nozomi; Kishida, Koji; Katayama, Ei  
PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan; Hodogaya Chemical Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 28 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
-----				

JP 09157378

A2

19970617

JP 1995-323268

1995  
1212

JP 3351944

B2

20021203

&lt;--

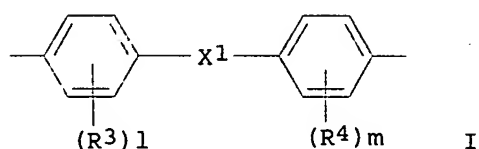
PRIORITY APPLN. INFO.:

JP 1995-323268

1995  
1212

&lt;--

GI



AB The polycarbonates, having good charge-transporting and mech. properties, contain the repeating units of  
 OZ2N(Z1CH:CR1R2)Z3O2COXOCO [X = divalent (cyclo)aliphatic group, I;  
 Z1-Z3 = (un)substituted arylene; R1, R2 = H, (un)substituted aryl,  
 or R1 and R3 may form a ring; R3, R3 = halo, (un)substituted alkyl  
 or aryl; 1, m = 0-4; X1 = direct bond, C1-12 (cyclo)alkylene, O,  
 S, SO, SO2, CO, CO2ZOCO, (CH2)a(SiR5R6O)bSiR5R6(CH2)a; R5, R6 =  
 (un)substituted alkyl, aryl; Z = aliphatic hydrocarbylene; a = 1-20;  
 b = 1-2000]. Thus, polymerization of 4-[bis(3-hydroxyphenyl)amino]stilbene with diethylene glycol  
 bischloroformate gave a polymer having Mw 64,300, and Tg  
 97°.

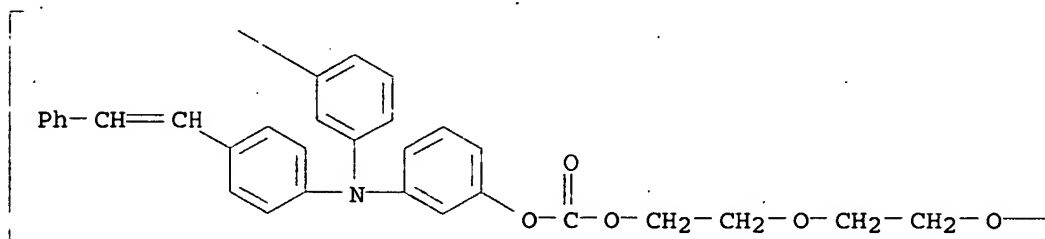
IT 192566-24-8P

(aromatic polycarbonates for photoconducting materials)

RN 192566-24-8 HCAPLUS

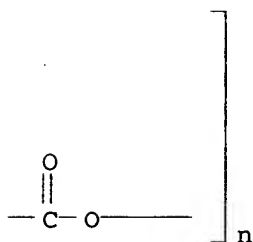
CN Poly[oxycarbonyloxy-1,2-ethanediylloxy-1,2-ethanediylloxycarbonyloxy-  
 1,3-phenylene[[4-(2-phenylethenyl)phenyl]imino]-1,3-phenylene]  
 (9CI) (CA INDEX NAME)

PAGE 1-A





PAGE 1-B



IC ICM C08G064-12  
ICS C08G064-10  
CC 35-5 (Chemistry of Synthetic High Polymers)  
Section cross-reference(s): 74  
IT 192566-23-7P 192566-24-8P 192566-25-9P  
192566-52-2P 192566-53-3P  
(aromatic polycarbonates for photoconducting materials)

L18 ANSWER 58 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:461437 HCAPLUS

DOCUMENT NUMBER: 127:101737

TITLE: Electrophotographic photoreceptor with superior durability

INVENTOR(S): Shimada, Tomoyuki; Sasaki, Masaomi; Ota, Masafumi; Ariga, Yamotsu; Nagai, Kazukiyo; Anzai, Mitsutoshi; Imai, Akihiro; Morooka, Katsuhiko

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan; Hodogaya Chemical Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.  
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

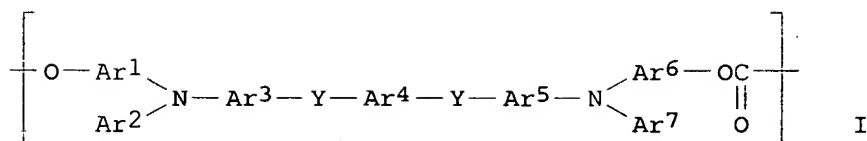
FAMILY ACC. NUM. COUNT: 4

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09127713	A2	19970516	JP 1996-166238	1996 0626
US 6027846	A	20000222	US 1996-671722	1996 0628
US 6316577	B1	20011113	US 2000-480636	2000 0110
PRIORITY APPLN. INFO.:			JP 1995-223641	A 1995 0831
			JP 1995-165977	A 1995

		0630
	<--	
JP	1995-207817	A
		1995
		0721
	<--	
JP	1995-199943	A
		1995
		0804
	<--	
JP	1996-166238	A
		1996
		0626
	<--	
JP	1996-167566	A
		1996
		0627
	<--	
JP	1996-169774	A
		1996
		0628
	<--	
US	1996-671722	A3
		1996
		0628
	<--	

GI



AB The title photoreceptor has on its elec. conductive support a photosensitive layer having a polycarbonate binder resin containing a structure repeating unit I (Ar<sup>1</sup>,3-6 = same or different (substituted) arylene; Ar<sup>2</sup>, Ar<sup>7</sup> = same or different (substituted) arylene; Y = ethylene, vinylene).

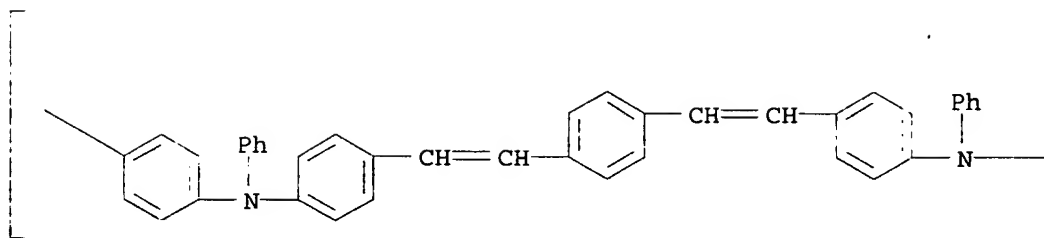
IT 191926-60-0

(binder resin for electrophotog. photoreceptor)

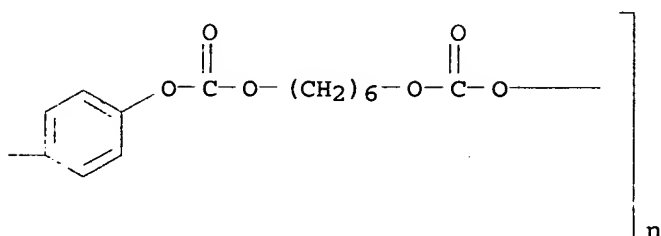
RN 191926-60-0 HCAPLUS

CN Poly[oxy-carbonyloxy-1,6-hexanediyl-oxy-carbonyloxy-1,4-phenylene(phenylimino)-1,4-phenylene-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl-1,4-phenylene(phenylimino)-1,4-phenylene] (9CI)  
(CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM G03G005-07  
ICS C08G064-12

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
Section cross-reference(s): 38

IT 190383-48-3 190383-50-7 190383-51-8 191926-44-0  
191926-45-1 191926-46-2 191926-47-3 191926-48-4  
191926-49-5 191926-50-8 191926-51-9 191926-53-1  
191926-55-3 191926-57-5 191926-59-7 191926-60-0  
191926-61-1 191926-62-2 191926-63-3  
191926-64-4 191926-65-5  
(binder resin for electrophotog. photoreceptor)

IT 189245-14-5P 189245-15-6P 190383-42-7P 190383-44-9P  
(prepared as binder resin for electrophotog. photoreceptor)

L18 ANSWER 59 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:355978 HCAPLUS

DOCUMENT NUMBER: 127:25947

TITLE: Electrophotographic photoreceptor

INVENTOR(S): Katayama, Ei; Sasaki, Masaomi; Nagai, Kazukiyo; Shimada, Tomoyuki; Adachi, Chihaya; Tanaka, Chiaki; Tamura, Hiroshi; Suzuki, Tetsuro; Tamoto, Nozomi; Kishida, Koji

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan; Hodogaya Chemical Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.  
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

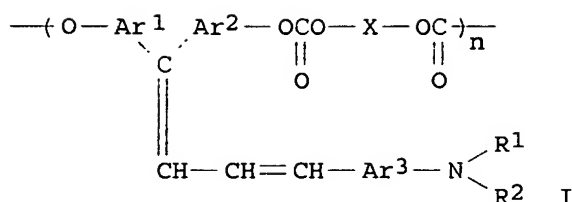
FAMILY ACC. NUM. COUNT: 3

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	---	-----	-----	-----

JP 09080783	A2	19970328	JP 1996-120296	1996 0515
US 5723243	A	19980303	US 1996-648759	1996 0516
PRIORITY APPLN. INFO.:			JP 1995-176189	A 1995 0712
			JP 1995-141290	A 1995 0516
			JP 1995-177402	A 1995 0713
			JP 1995-336739	A 1995 1225
			JP 1996-120296	A 1996 0515
			JP 1996-120298	A 1996 0515
			JP 1996-146601	A 1996 0516

GI

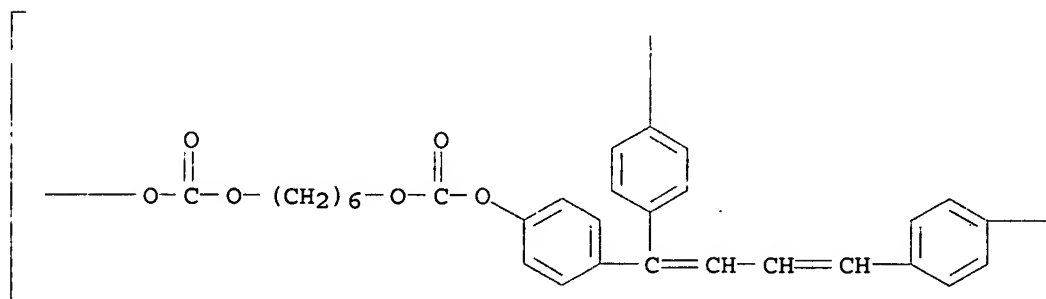


AB The electrophotog. photoreceptor comprises on its elec. conductive substrate a photosensitive layer containing an aromatic polycarbonate resin having a repeating unit I ( $n = 5 - 5,000$ ; Ar<sub>1-3</sub> = bivalent aromatic hydrocarbon group; R<sub>1,2</sub> = acyl, alkyl, aromatic or heterocyclic group; X = aliphatic bivalent group, alicyclic bivalent group, etc.; Y = single bond, C<sub>1-12</sub> alkylene, O, S, SO, SO<sub>2</sub>, CO, -CO<sub>2</sub>ZO<sub>2</sub>C-; Z = aliphatic bivalent group; a = 0-20; b = 1-2,000; R<sub>5,6</sub> = alkyl, aromatic hydrocarbon group). This electrophotog. photoreceptor shows high sensitivity and improved durability.

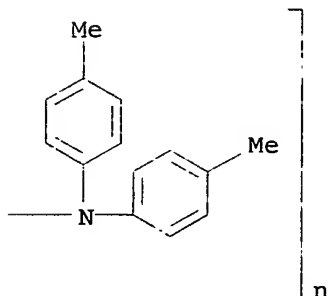
IT 189451-34-1

(charge-transporting material for electrophotog. photoreceptor)  
 RN 189451-34-1 HCAPLUS  
 CN Poly[oxy-carbonyloxy-1,6-hexanediyl-oxy-carbonyloxy-1,4-phenylene[4-[4-[bis(4-methylphenyl)amino]phenyl]-1,3-butadienylydene]-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM G03G005-07  
 ICS C08G064-08; C08L069-00  
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 IT 189451-34-1 189451-35-2 189451-36-3  
 189451-38-5 189451-39-6 189451-40-9 189451-41-0  
 189451-42-1 189451-43-2 189451-44-3  
 (charge-transporting material for electrophotog. photoreceptor)  
 IT 188411-76-9P 188411-77-0P  
 (charge-transporting material for electrophotog. photoreceptor)

L18 ANSWER 60 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1997:331871 HCAPLUS

DOCUMENT NUMBER: 127:11081

TITLE: Aromatic polycarbonates with good charge-transporting capabilities and mechanical strength for electrophotographic photoreceptors

INVENTOR(S): Anzai, Mitsutoshi; Imai, Akihiro; Morooka, Katsuhiro; Shimada, Tomoyuki; Sasaki, Masaomi; Ota, Masafumi; Ariga, Yamotsu; Nagai, Kazukiyo  
 PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan; Hodogaya Chemical Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.

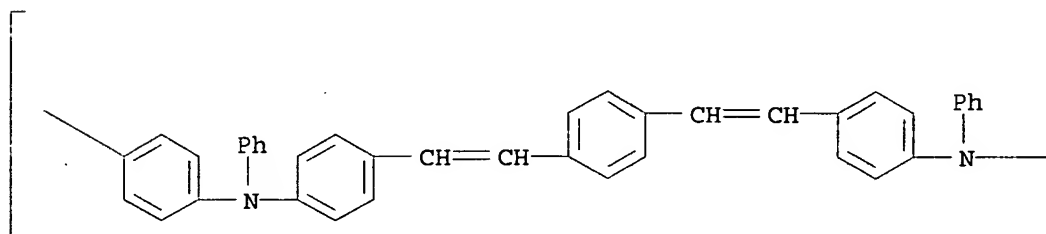
DOCUMENT TYPE: CODEN: JKXXAF  
 LANGUAGE: Patent  
 FAMILY ACC. NUM. COUNT: 4 Japanese  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 09071642	A2	19970318	JP 1996-169774	1996 0628
JP 3352326	B2	20021203	<--	
US 6027846	A	20000222	US 1996-671722	1996 0628
US 6316577	B1	20011113	US 2000-480636	2000 0110
PRIORITY APPLN. INFO.:			JP 1995-165977	A 1995 0630
			JP 1995-207817	A 1995 0721
			JP 1995-199943	A 1995 0804
			JP 1995-223641	A 1995 0831
			JP 1996-166238	A 1996 0626
			JP 1996-167566	A 1996 0627
			JP 1996-169774	A 1996 0628
			US 1996-671722	A3 1996 0628

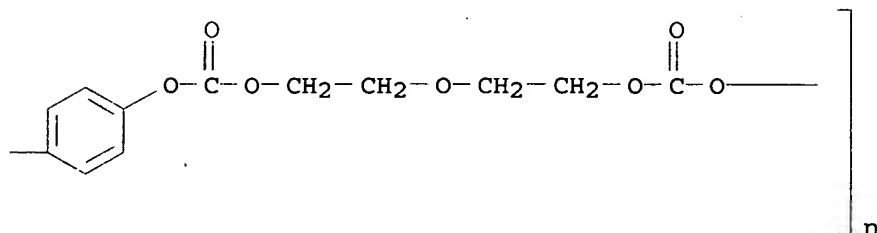
AB The title polymers have repeating units -  
 OAr1(Ar2)NAr3CH:CHAR4CH:CHAR5N(Ar7)Ar6O2C- [Ar1, Ar3-6 =  
 (un)substituted arylene; Ar2, Ar7 = (un)substituted aryl].  
 IT 189245-15-6P  
 (aromatic polycarbonates with good charge-transporting  
 capabilities and mech. strength for electrophotog.

photoreceptors)  
 RN 189245-15-6 HCAPLUS  
 CN Poly[oxy-carbonyloxy-1,2-ethanediyl-oxy-1,2-ethanediyl-oxy-carbonyloxy-1,4-phenylene(phenylimino)-1,4-phenylene-1,2-ethenediyl-1,4-phenylene-1,2-ethenediyl-1,4-phenylene(phenylimino)-1,4-phenylene]  
 (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM C08G064-12  
 ICS G03G005-07  
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 Section cross-reference(s): 35  
 IT 189245-14-5P 189245-15-6P 189245-16-7P 189245-18-9P  
 189245-19-0P 189245-20-3P 189245-21-4P  
 189245-22-5P 189245-23-6P 189245-24-7P 189245-25-8P  
 189245-26-9P 189245-27-0P 189245-29-2P  
 189245-30-5P 189245-31-6P  
 (aromatic polycarbonates with good charge-transporting capabilities and mech. strength for electrophotog. photoreceptors)  
 L18 ANSWER 61 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1997:253532 HCAPLUS  
 DOCUMENT NUMBER: 126:244831  
 TITLE: Conjugated diene compound useful as photoconductive material  
 INVENTOR(S): Katayama, Ei; Sasaki, Masaomi; Nagai, Kazukyo; Shimada, Tomoyuki; Adachi, Chihaya; Tanaka, Chiaki; Tamura, Hiroshi; Suzuki, Tetsuo; Kishida, Koji; Tamoto, Nozomi  
 PATENT ASSIGNEE(S): Ricoh KK, Japan; Hodogaya Chemical Co., Ltd.  
 SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent

LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
JP 09031034	A2	19970204	JP 1996-146601	1996 0516
JP 3571461	B2	20040929	<--	
US 5723243	A	19980303	US 1996-648759	1996 0516
PRIORITY APPLN. INFO.:			<--	
			JP 1995-141290	A 1995 0516
			<--	
			JP 1995-176189	A 1995 0712
			<--	
			JP 1995-177402	A 1995 0713
			<--	
			JP 1995-336739	A 1995 1225
			<--	
			JP 1996-120296	A 1996 0515
			<--	
			JP 1996-120298	A 1996 0515
			<--	
			JP 1996-146601	A 1996 0516
			<--	
OTHER SOURCE(S):	MARPAT 126:244831			
GI				

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT  
 \*

AB The title compound has the general formula  
 $R1OAr1(Ar2OR2)C:CHCH:CHAr3NR3R4$ ,  $HOAr1(Ar2OH)C:CHCH:CHAr3NR3R4$ , I,  
 II, or III [R1, R2 = (substituted) alkyl, acyl; R3, R4 = H, acyl,  
 (substituted) alkyl, (substituted) aryl; R5 = H, (substituted)  
 alkyl, (substituted) aryl, alkoxy, halo; Ar1-3 = arylene]. The  
 compound is useful as a photoconductive material, a  
 charge-transporting agent for electrophotog. photoreceptors, and



an intermediate for preparing useful materials such as polyester resin, etc..

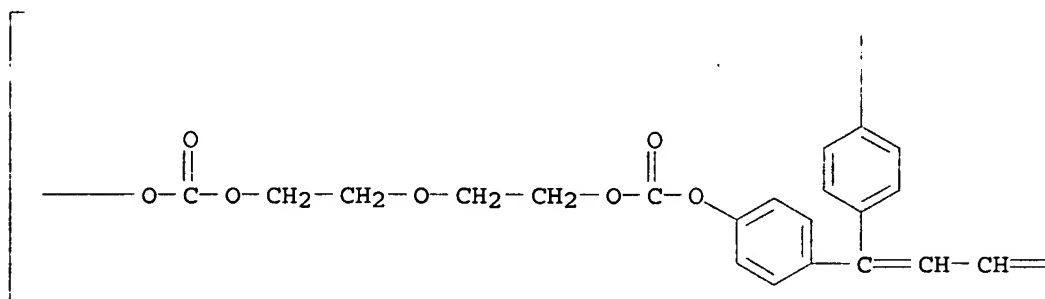
IT 188411-77-0P

(preparation of polycarbonate from phenylamino hydroxyphenyl butadiene compound)

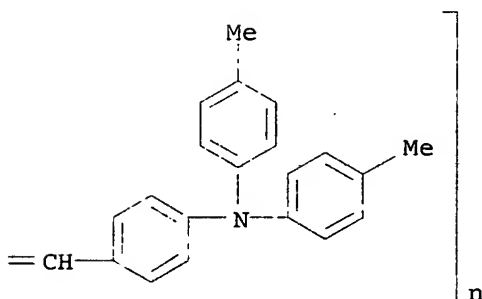
RN 188411-77-0 HCAPLUS

CN Poly[oxy-carbonyloxy-1,2-ethanediyl-oxy-1,2-ethanediyl-oxy-carbonyloxy-1,4-phenylene[4-[4-[bis(4-methylphenyl)amino]phenyl]-1,3-butadienylidene]-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM C07C217-80

ICS C07C219-34; G03G005-06

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 25

IT 188411-76-9P 188411-77-0P

(preparation of polycarbonate from phenylamino hydroxyphenyl butadiene compound)

L18 ANSWER 62 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1995:708910 HCAPLUS

DOCUMENT NUMBER: 123:241913

TITLE: Electrophotographic photoreceptors containing triarylamine-terminated polycarbonate resin

INVENTOR(S): Tamura, Hiroshi; Fukagai, Toshio; Sasaki, Masaomi; Tokuda, Toshimasa

PATENT ASSIGNEE(S): Ricoh Kk, Japan; Teijin Chemicals Ltd

SOURCE: Jpn. Kokai Tokkyo Koho, 24 pp.

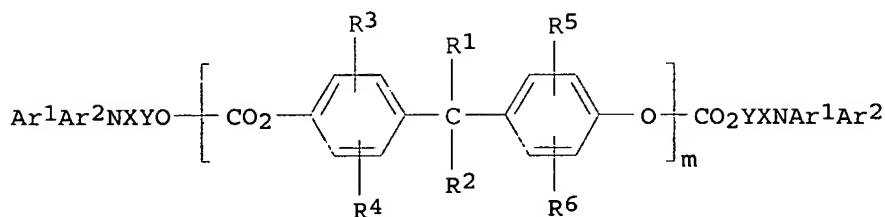
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07114190	A2	19950502	JP 1993-348182	1993 1224
PRIORITY APPLN. INFO.:				
			JP 1993-348182	A 1993 1224
			JP 1993-230973	1993 0824

GI



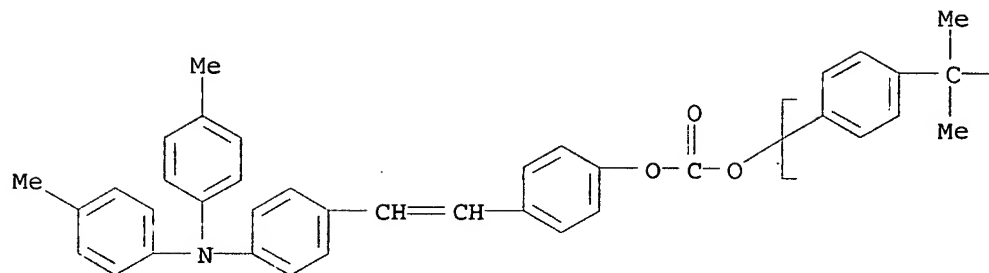
AB The photoreceptors comprise a conductive support coated with a photosensitive layer containing a triarylamine-terminated polycarbonate resin. The polycarbonate resin may be I [X = arylene, divalent stilbene group, divalent  $\alpha,\omega$ -diphenylalkane group; Y = bond, alkylene, (CH<sub>2</sub>)<sub>n</sub>O (n = 1-6); Ar<sub>1</sub>, Ar<sub>2</sub> = (substituted) aryl; R<sub>1</sub>, R<sub>2</sub> = H, C<sub>1</sub>-10 alkyl, (substituted) aryl, R<sub>1</sub> and R<sub>2</sub> may form cycloalkyl which may be substituted for C<sub>4</sub>-12 substituents; R<sub>3</sub>-6 = H, (substituted) alkyl, aryl, halo; m = 0-100]. The photoreceptors show high sensitivity and improved abrasion resistance. Thus, an Al cylinder with an interlayer was coated with charge-generating layer made of a bisazo pigment and with a charge-transporting layer containing (p-MeC<sub>6</sub>H<sub>4</sub>)<sub>2</sub>NC<sub>6</sub>H<sub>4</sub>-p-C<sub>6</sub>H<sub>4</sub>OMe-p, I (X = p-C<sub>6</sub>H<sub>4</sub>C<sub>6</sub>H<sub>4</sub>-p; Y = bond; Ar<sub>1</sub> = Ar<sub>2</sub> = p-MeC<sub>6</sub>H<sub>4</sub>; R<sub>1</sub> = R<sub>2</sub> = Me; R<sub>3</sub>-6 = H), and a binder resin to give a photoreceptor.

IT 168275-10-3  
 (electrophotog. photoreceptor containing triarylamine-terminated polycarbonate)

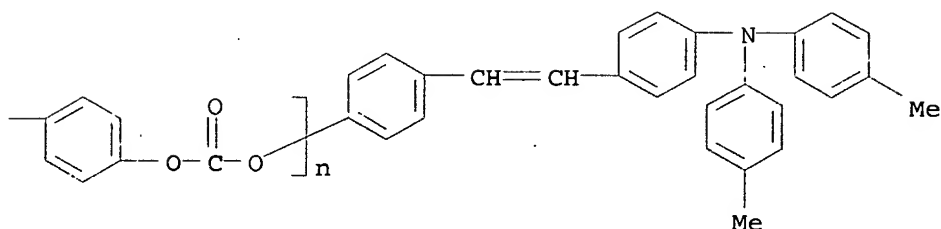
RN 168275-10-3 HCAPLUS

CN Poly[oxycarbonyloxy-1,4-phenylene(1-methylethylidene)-1,4-phenylene],  $\alpha$ -[4-[2-[4-[bis(4-methylphenyl)amino]phenyl]ethenyl]phenyl]- $\omega$ -[[[4-[2-[4-[bis(4-methylphenyl)amino]phenyl]ethenyl]phenoxy]carbonyl]oxy]- (9CI)  
 (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC ICM G03G005-05  
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 IT 25037-45-0D, triarylamine-terminated 26471-16-9D,  
 triarylamine-terminated 26570-63-8D, triarylamine-terminated  
 30142-62-2D, triarylamine-terminated 31563-79-8D,  
 triarylamine-terminated 168275-07-8D, triarylamine-terminated  
 168275-08-9 168275-09-0 **168275-10-3**  
**168275-11-4** 168275-12-5 168275-13-6 168275-14-7  
 168275-15-8 168275-16-9 168275-17-0 168275-18-1  
**168569-66-2 168650-37-1**  
 (electrophotog. photoreceptor containing triarylamine-terminated polycarbonate)

L18 ANSWER 63 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1995:686839 HCAPLUS  
 DOCUMENT NUMBER: 123:97831  
 TITLE: Electrophotographic photoreceptor  
 INVENTOR(S): Hayata, Hirofumi  
 PATENT ASSIGNEE(S): Konishiroku Photo Ind, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 18 pp.  
 CODEN: JKXXAF

DOCUMENT TYPE: **Patent**  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07056374	A2	19950303	JP 1993-198546	

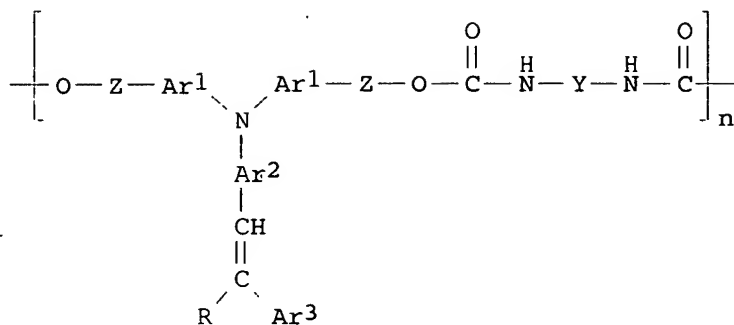
1993  
0810JP 3252241  
PRIORITY APPLN. INFO.:

B2 20020204

JP 1993-198546

1993  
0810

GI



I

AB In the title electrophotog. photoreceptor comprising a photosensitive layer on an elec. conductive substrate, the photosensitive layer contains a polymer I [Ar<sup>1,2</sup> = arylene; Ar<sup>3</sup> = aryl, heterocyclyl; Y = bifunctional group; R = H, alkyl, alkoxy, aryl, heterocyclyl; R and Ar<sup>3</sup> may form a ring with other atoms; Z = alkylene, arylene; weight-average mol. weight = 10,000-1,000,000.] as a charge-transporting material. This photoreceptor shows high sensitivity and good chargeability.

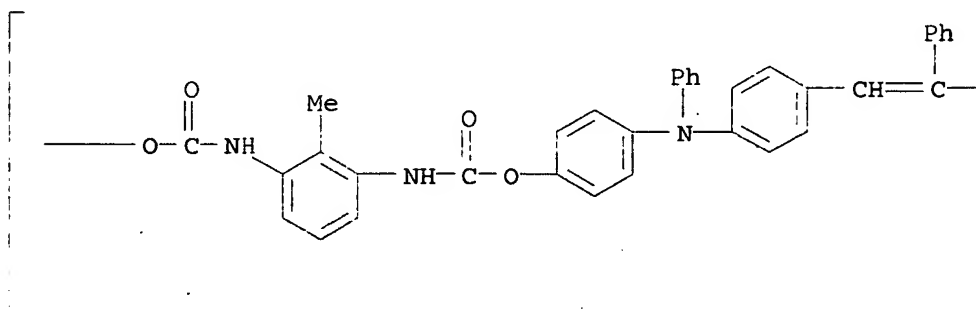
IT 165122-83-8

(charge-transporting material for electrophotog. photoreceptor)

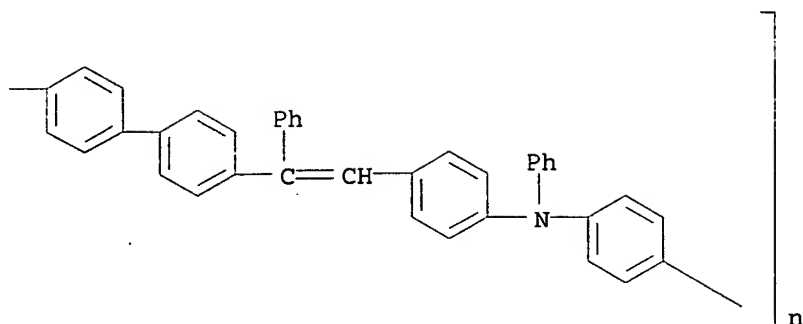
RN 165122-83-8 HCAPLUS

CN Poly[oxy carbonylimino(2-methyl-1,3-phenylene)iminocarbonyloxy-1,4-phenylene(phenylimino)-1,4-phenylene(2-phenyl-1,2-ethenediyl)[1,1'-biphenyl]-4,4'-diyl(1-phenyl-1,2-ethenediyl)-1,4-phenylene(phenylimino)-1,4-phenylene] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

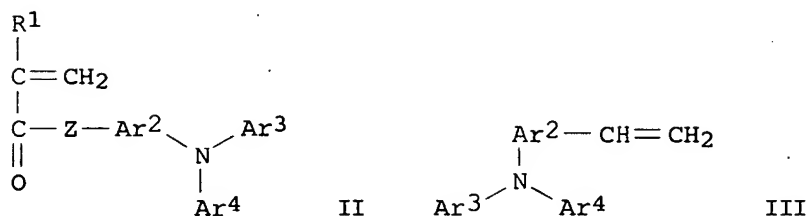
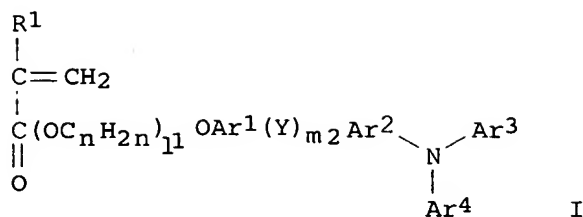


IC ICM G03G005-07  
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 IT 165122-69-0 165122-71-4 165122-72-5 165122-74-7  
 165122-76-9 165122-78-1 165122-80-5 165122-82-7  
 165122-83-8 165122-84-9 165122-85-0  
 165122-86-1 165245-38-5 165245-39-6 165245-40-9  
 (charge-transporting material for electrophotog. photoreceptor)  
 IT 165122-53-2P 165122-54-3P 165122-56-5P 165122-58-7P  
 165122-59-8P 165122-61-2P 165122-63-4P  
 165122-64-5P 165122-66-7P 165122-68-9P 165245-41-0P  
 (charge-transporting material for electrophotog. photoreceptor)

L18 ANSWER 64 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1995:606788 HCAPLUS  
 DOCUMENT NUMBER: 123:22138  
 TITLE: Electrophotographic photoreceptor  
 INVENTOR(S): Tamura, Hiroshi; Fukagai, Toshio  
 PATENT ASSIGNEE(S): Ricoh Kk, Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 31 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 07072640	A2	19950317	JP 1994-26176	1994 0128
JP 3286704	B2	20020527		
US 5427880	A	19950627	US 1994-189605	1994 0201
PRIORITY APPLN. INFO.:			JP 1993-36152	A 1993 0201

GI



AB In the title electrophotog. photoreceptor comprising a photosensitive layer on an elec. conductive support, the above photosensitive layer is obtained by forming a layer containing a binder resin and a monomer I, II or III ( $\text{R}^1 = \text{Me}$ ;  $\text{Ar}^{1,2} =$  bivalent aromatic hydrocarbon group, bivalent condensed polycyclic group;  $\text{Ar}^{3,4} =$  monovalent aromatic hydrocarbon group, monovalent condensed polycyclic group;  $\text{Y} = \text{C}_n\text{H}_{2n}$ ,  $\text{CH}=\text{CH}$ ,  $\text{CAr}^1=\text{CH}$ ;  $\text{Z} = \text{O}$ ,  $\text{OC}_n\text{H}_{2n}$ ,  $\text{OC}_n\text{H}_{2n}\text{O}$ ;  $n = 1-10$ ;  $l, m = 0, 1$ ), and polymerizing the monomer to form a charge-transporting material by heat or light. This photoreceptor shows good abrasion resistance.

IT 163767-09-7P

(charge-transporting material for electrophotog. photoreceptor)

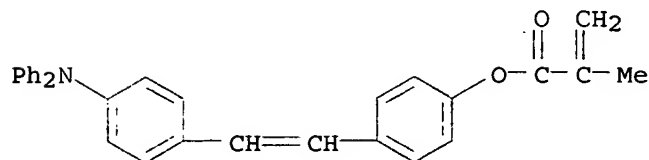
RN 163767-09-7 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, 4-[2-[4-(diphenylamino)phenyl]ethenyl]phenyl ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 163767-08-6

CMF C30 H25 N O2



IC ICM G03G005-06

ICS G03G005-06

ICA G03G005-05

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 74065-49-9P 152600-64-1P 152600-76-5P 152600-90-3P

152636-46-9P 163767-05-3P 163767-06-4P 163767-07-5P

163767-09-7P 163767-11-1P

(charge-transporting material for electrophotog. photoreceptor)

L18 ANSWER 65 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1995:526585 HCAPLUS

DOCUMENT NUMBER: 122:266366

TITLE: Polycarbonate polymer derived from dihydroxy compound having triphenylamine structure

INVENTOR(S): Ogawa, Noriyoshi; Kanayama, Satoshi

PATENT ASSIGNEE(S): Mitsubishi Gas Chemical Co., Inc., Japan

SOURCE: Eur. Pat. Appl., 26 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 610912	A2	19940817	EP 1994-101976	1994 0209
EP 610912	A3	19940928	<--	
EP 610912	B1	19980812		
R: DE, FR, GB, IT, NL				
JP 06234839	A2	19940823	JP 1993-21329	1993 0209
JP 06293827	A2	19941021	JP 1994-12909	1994 0204
JP 06293718	A2	19941021	JP 1994-12910	1994 0204
US 5428090	A	19950627	US 1994-194219	1994 0209
PRIORITY APPLN. INFO.:			JP 1993-21325	A 1993 0209
			JP 1993-21329	A 1993 0209

AB The polycarbonate is obtained by reacting a dihydroxy compound having a triphenylamine structure and a carbonate precursor, or by reacting the dihydroxy compound, a dihydric phenol compound and the carbonate precursor. The polycarbonate is useful as a plastic molding material or as a material for forming a polymer alloy with other resin (no data). Thus, the reaction of 1 mol bis(4-methylphenyl)-4-formylphenylamine with 10 mol PhOH in the presence of HCl (g) at 60°, until HCl concentration 2%, for 8 h gave a dihydroxy compound (HO-p-C<sub>6</sub>H<sub>4</sub>)<sub>2</sub>CHC<sub>6</sub>H<sub>4</sub>-p-N(C<sub>6</sub>H<sub>4</sub>-p-Me)<sub>2</sub> (I).

Polymerization of I and COCl<sub>2</sub> in CH<sub>2</sub>Cl<sub>2</sub> at 15° for 1 h in the presence of NaOH gave a polycarbonate having limiting viscosity (in CH<sub>2</sub>Cl<sub>2</sub>, 0.5 g/dL, 20°) 0.46 dL/g.

IT 162780-84-9P  
(polycarbonate polymer derived from dihydroxy compound having triphenylamine structure)  
RN 162780-84-9 HCAPLUS  
CN Poly[oxy-carbonyloxy-1,4-phenylene[1-[4-[4-[2-(4-methylphenyl)ethenyl]phenyl]phenylamino]phenyl]ethylidene]-1,4-phenylene] (9CI) (CA INDEX NAME)

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT  
\*

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT  
\*

IC ICM C08G064-12  
CC 35-5 (Chemistry of Synthetic High Polymers)  
Section cross-reference(s): 25  
IT 160380-00-7P 160380-01-8P 160380-03-0P 160380-06-3P  
160380-07-4P 160380-09-6P 160380-10-9P 160380-12-1P  
160380-13-2P 160380-14-3P 162780-80-5P 162780-81-6P  
162780-82-7P 162780-83-8P 162780-84-9P 162780-85-0P  
162780-86-1P  
(polycarbonate polymer derived from dihydroxy compound having triphenylamine structure)

L18 ANSWER 66 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1994:90808 HCAPLUS  
DOCUMENT NUMBER: 120:90808  
TITLE: Electrophotographic photoreceptors with improved mechanical strength  
INVENTOR(S): Tamura, Hiroshi; Mishima, Naoshi; Kawasaki, Yoshiaki  
PATENT ASSIGNEE(S): Ricoh Kk, Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 25 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05216249	A2	19930827	JP 1992-41937	1992 0131
JP 3194392	B2	20010730	<--	
US 5411827	A	19950502	US 1993-10868	1993 0129
US 5496671	A	19960305	US 1994-325093	<--



1994  
1017

PRIORITY APPLN. INFO.:

<--  
JP 1992-41937 A1992  
0131<--  
US 1993-10868 A11993  
0129

AB The photoreceptors comprise a conductive support successively coated with a charge-generating layer and a charge-transporting layer formed by reacting monomers having C:C double bonds with the double bonds of the charge-transporting material by heat or light energy. The charge-transporting layer is formed by reacting the binder resin having C:C double bonds in its main or side chain with the double bonds of the charge-transporting material by heat or light energy. The photoreceptors show high mech. strength and good photosensitivity and durability. Thus, an Al substrate coated with an interlayer and with a charge-generating layer containing a bisazo compound was coated with a composition containing Me methacrylate-Bu methacrylate copolymer, 1,6-hexanediol dimethacrylate, MeC(:CH<sub>2</sub>)CO<sub>2</sub>(p-C<sub>6</sub>H<sub>4</sub>)(p-C<sub>6</sub>H<sub>4</sub>)N(C<sub>6</sub>H<sub>4</sub>Me-p)<sub>2</sub>, and Michler's ketone and irradiated using a Hg lamp to give a photoreceptor.

IT 152759-04-1  
(charge-transporting layers containing, for electrophotog.  
photoreceptors)

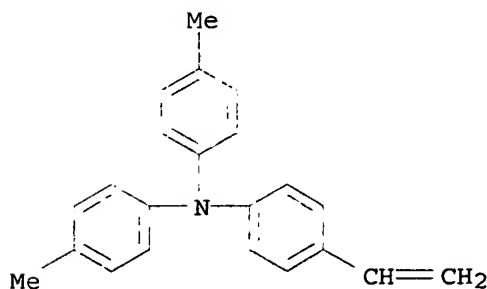
RN 152759-04-1 HCAPLUS

CN 1,3-Benzenedicarboxylic acid, di-2-propenyl ester, polymer with 4-ethenyl-N,N-bis(4-methylphenyl)benzenamine (9CI) (CA INDEX NAME).

CM 1

CRN 74065-48-8

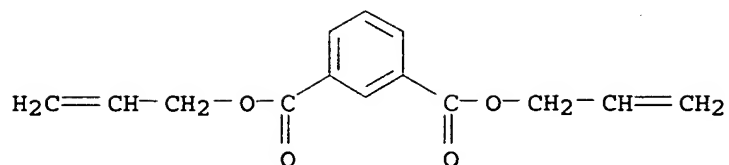
CMF C22 H21 N



CM 2

CRN 1087-21-4

CMF C14 H14 O4



IC ICM G03G005-047  
ICS G03G005-05  
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
IT 152758-98-0 152758-99-1 152759-01-8 152759-03-0  
152759-04-1 152759-06-3 152759-08-5  
152759-10-9 152759-11-0 152759-13-2 152759-14-3  
152759-15-4 152759-16-5 152759-18-7 152759-19-8  
152759-20-1 152759-21-2 152759-22-3  
(charge-transporting layers containing, for electrophotog.  
photoreceptors)

L18 ANSWER 67 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1990:45627 HCAPLUS  
DOCUMENT NUMBER: 112:45627  
TITLE: Durable electrophotographic photoconductor  
sensitive in short wavelength region  
INVENTOR(S): Tamura, Hiroshi; Sasaki, Masaomi; Akeyoshi,  
Hideki; Suzuki, Reiko  
PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 16 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

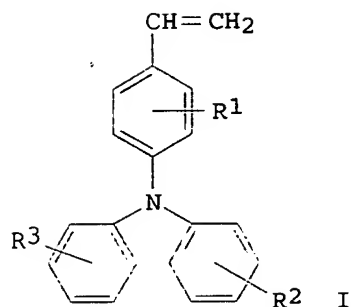
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01105954	A2	19890424	JP 1987-265116	1987

1019

PRIORITY APPLN. INFO.: <-- JP 1987-265116

1987  
1019

GI



AB The title photoconductor showing no residual voltage buildup or deterioration in chargeability contains an elec. conductive substrate and at least a layer in which charge-generating material is dispersed, wherein the layer also contain (Co)polymer of the monomer I [R1-3 = H, halogen, (un)substituted for alkyl, C1-5 alkoxy, (un)substituted aryl group].

IT 124679-90-9

(in charge-generating layers in electrophotog. photoconductors, with improved performance and durability)

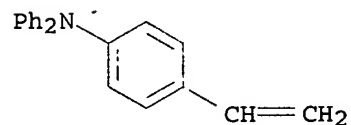
RN 124679-90-9 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with 4-ethenyl-N,N-diphenylbenzenamine and 2-hydroxyethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 25069-74-3

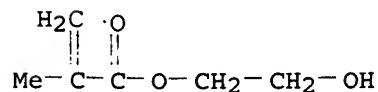
CMF C20 H17 N



CM 2

CRN 868-77-9

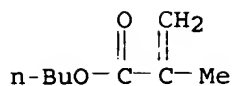
CMF C6 H10 O3



CM 3

CRN 97-88-1

CMF C8 H14 O2



IC ICM G03G005-05  
 CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
 IT 78099-29-3 124679-90-9 124679-91-0  
 124679-93-2 124679-94-3  
 (in charge-generating layers in electrophotog. photoconductors, with improved performance and durability)

L18 ANSWER 68 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1989:605453 HCAPLUS

DOCUMENT NUMBER: 111:205453

TITLE: Electrophotographic photoreceptors with a protective layer containing a (co)polymer of a vinyltriphenylamine derivative

INVENTOR(S): Tamura, Hiroshi; Akeyoshi, Hideki; Suzuki, Reiko

PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

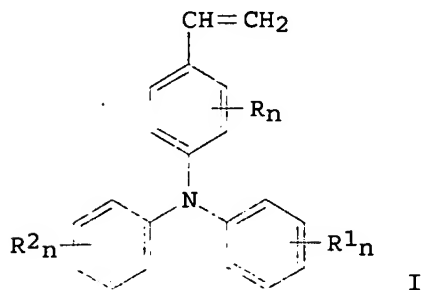
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01112251	A2	19890428	JP 1987-270899	1987 1026
			<--	
PRIORITY APPLN. INFO.:			JP 1987-270899	1987 1026
			<--	

GI



AB Electrophotog. photoreceptors are prepared by successively laminating a charge-generating layer, a charge-transporting layer, and a protective layer containing a polymer I [R, R1-2 = H, halo, C1-5

alkyl, C1-5 alkoxy, (substituted) aryl; n = 1-5] and/or a copolymer of I and other copolymerizable monomers on a conductive support. Thus, an Al cylinder with an undercoat layer made of CM 8000 (polyamide resin) was coated with an azo pigment, then coated with a composition containing a triphenylamine derivative and C 1400 (polycarbonate resin), and finally coated with poly(vinyltriphenylamine) to give a photoreceptor. The photoreceptor gave high quality images, and showed high sensitivity, low residual potential, good abrasion resistance, and excellent durability.

IT 123543-64-6P

(preparation of, electrophotog. photoreceptor protective coating containing, for good abrasion resistance and durability)

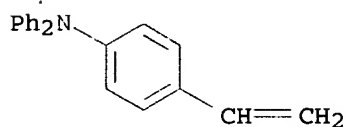
RN 123543-64-6 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, butyl ester, polymer with 4-ethenyl-N,N-diphenylbenzenamine and oxiranylmethyl 2-methyl-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 25069-74-3

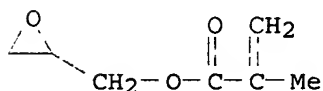
CMF C20 H17 N



CM 2

CRN 106-91-2

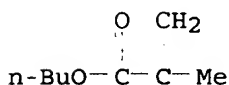
CMF C7 H10 O3



CM 3

CRN 97-88-1

CMF C8 H14 O2



IC ICM G03G005-14

ICA C08F012-28; C08F012-32

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 78099-29-3P 123543-64-6P 123589-32-2P

(preparation of, electrophotog. photoreceptor protective coating  
containing, for good abrasion resistance and durability)

L18 ANSWER 69 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1987:20001 HCAPLUS

DOCUMENT NUMBER: 106:20001

TITLE: Polymerizable dye components for condensation  
polymers

INVENTOR(S): Pruett, Wayne Payton; Wang, Richard Hsu Shien;  
Hilbert, Samuel David; Weaver, Max Allen

PATENT ASSIGNEE(S): Eastman Kodak Co., USA

SOURCE: PCT Int. Appl., 112 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 8604904	A1	19860828	WO 1986-US298	1986 0213
<--				
W: AU, JP, KR RW: BE, DE, FR, GB, IT, NL US 4617373	A	19861014	US 1986-823424	1986 0128
<--				
AU 8655136	A1	19860910	AU 1986-55136	1986 0213
<--				
AU 579923 EP 215054	B2 A1	19881215 19870325	EP 1986-901615	1986 0213
<--				
EP 215054 R: BE, DE, FR, GB, IT, NL JP 62501856	B1 T2	19900103 19870723	JP 1986-501257	1986 0213
<--				
JP 07116281 CA 1282528	B4 A1	19951213 19910402	CA 1986-501770	1986 0213
<--				
ZA 8601130	A	19860924	ZA 1986-1130	1986 0214
<--				
ZA 8601129	A	19861029	ZA 1986-1129	1986 0214
<--				
ES 552037	A1	19870901	ES 1986-552037	

				1986 0214
			<--	
ES 552038	A1	19870916	ES 1986-552038	1986 0214
			<--	
CN 86101649	A	19870121	CN 1986-101649	1986 0215
			<--	
CN 1008100	B	19900523		
PRIORITY APPLN. INFO.:			US 1985-702106	A 1985 0215
			<--	
			US 1986-823424	A 1986 0128
			<--	
			WO 1986-US298	A 1986 0213
			<--	

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT  
\*

AB Polymerizable dyes R1R2C:CHR3 (I) and II-IV [R1, R2 = CN, carbalkoxy, carbaryloxy, carbaralkyloxy, carbamyl, carboxy, N-alkylcarbamyl, N-alkyl-N-arylcarbamyl, N,N-dialkylcarbamyl, N-arylcarbamyl, N-cyclohexylcarbamyl, aryl, 2-benzoxazolyl, 2-benzothiazolyl, 2-benzimidazolyl, 1,3,4-thiadiazol-2-yl, 1,3,4-oxadiazol-2-yl, alkylsulfonyl, arylsulfonyl, acyl; R3 = Q1-Q4, p-C6H4NR4R5; R4, R5 = H, (un)substituted cycloalkyl, (un)substituted Ph, lower alkenyl, (un)substituted C1-8 alkyl; R6, R7, R8 = H, alkyl; R9 = H, alkyl, aryl; Z = direct bond, CO2, O, S, SO2, SS, O2CZ2CO2, O2CNHZ2NHCO2, OCO2, arylene, alkylene; Z2 = alkylene, arylene; Z1 = alkylene, arylene, aralkylene, alkyleneoxy, alkyleneoxyalkylene; R = H, F, Cl, Br, alkyl, alkoxy, Ph, PhO, alkylthio, arylthio; n = 0, 1, 2] are prepared and copolymd., in an amount of 1.0-5000 ppm, with comonomers to form colored plastic compns. having intrinsic viscosity .apprx.0.4-1.2, which are useful for molding and fiber applications. Thus, 4-(N,N-dimethylamino)cinnamaldehyde was condensed with Me cyanoacetate under reflux to give V, which had  $\lambda_{\max}$  464 nm ( $\epsilon$  = 38,000). V was copolymd. at 200 ppm with di-Me terephthalate and ethylene glycol to give a brilliant yellow polyester.

IT 105913-41-5P

(film, yellow, preparation of)

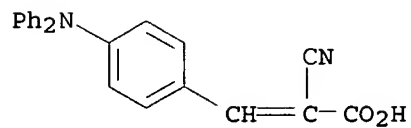
RN 105913-41-5 HCAPLUS

CN 1,4-Benzenedicarboxylic acid, dimethyl ester, polymer with cis-1,4-cyclohexanedimethanol, trans-1,4-cyclohexanedimethanol and 1,2-ethanediol, 2-cyano-3-[4-(diphenylamino)phenyl]-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 30388-31-9

CMF C22 H16 N2 O2



CM 2

CRN 163883-37-2

CMF (C10 H10 O4 . C8 H16 O2 . C8 H16 O2 . C2 H6 O2)x

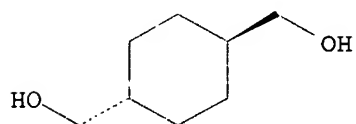
CCI PMS

CM 3

CRN 3236-48-4

CMF C8 H16 O2

Relative stereochemistry.

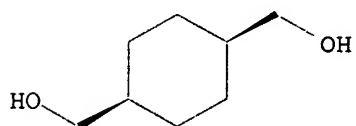


CM 4

CRN 3236-47-3

CMF C8 H16 O2

Relative stereochemistry.

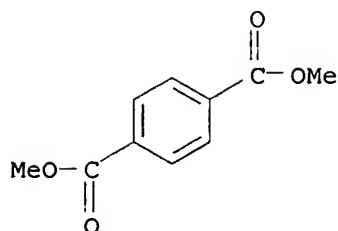


CM 5

CRN 120-61-6

CMF C10 H10 O4





CM 6

CRN 107-21-1

CMF C2 H6 O2

HO-CH<sub>2</sub>-CH<sub>2</sub>-OH

IC ICM C08G063-68

ICS C08G069-48

CC 41-8 (Dyes, Organic Pigments, Fluorescent Brighteners, and  
Photographic Sensitizers)

Section cross-reference(s): 35, 37, 40

IT 105913-41-5P 105913-44-8P  
(film, yellow, preparation of)

L18 ANSWER 70 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1985:550953 HCAPLUS

DOCUMENT NUMBER: 103:150953

TITLE: Chloroaluminumphthalocyanine exhibiting  
reduced green spectral absorption

INVENTOR(S): Ksaacson, Henry V.; Wright, Hal E.

PATENT ASSIGNEE(S): Eastman Kodak Co., USA

SOURCE: U.S., 3 pp.  
CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	
US 4535046	A	19850813	US 1983-509536	1983 0630

PRIORITY APPLN. INFO.:

<--  
US 1983-5095361983  
0630

AB Prior-art chloroaluminumphthalocyanine (I) is blended with a polymer matrix containing a condensation polymer or copolymer containing recurring units derived from a bis[4-N-(2-hydroxyethyl)piperidyl] alkane and milled with methylene chloride (II) to form composite particles of a new form of I, which has reduced absorption in the green region of the spectrum enabling its use as a cyan colorant

in a photoelectrophoretic imaging device also using a magenta colorant. Thus, a mixture containing II 30 mL, I 1, di-p-tolylaminostyrene-lauryl methacrylate-lithium methacrylate-methacrylic acid polymer 0.5, 4,4'-bis(N-ethylene-N-ethylamino)-2,2'-dimethyltriphenylmethane-tetramethylene terephthalate-3,3'-sodioiminobis(sulfonylbenzoate) polymer 0.5, and 1,3-bis(4-(N-ethylene)piperidyl)propane-3,5-pyridicarboxylate polymer 0.5 g was milled to produce the desired composite particles.

IT 89140-84-1  
(reaction mixture containing, for preparation of modified chloroaluminumphthalocyanine for cyan colorant in photoimaging materials)

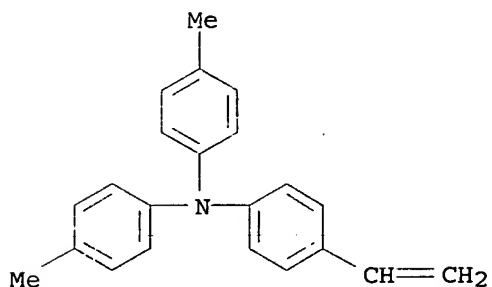
RN 89140-84-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with dodecyl 2-methyl-2-propenoate, 4-ethenyl-N,N-bis(4-methylphenyl)benzenamine and lithium 2-methyl-2-propenoate (9CI)  
(CA INDEX NAME)

CM 1

CRN 74065-48-8

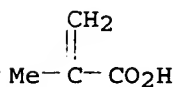
CMF C22 H21 N



CM 2

CRN 13234-23-6

CMF C4 H6 O2 . Li

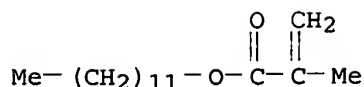


● Li

CM 3

CRN 142-90-5

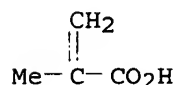
CMF C16 H30 O2



CM 4

CRN 79-41-4

CMF C4 H6 O2



IC ICM G03G005-06

INCL 430078000

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 75-09-2, uses and miscellaneous 89118-68-3 89140-84-1

98613-78-6 98613-81-1 98613-82-2

(reaction mixture containing, for preparation of modified chloroaluminumphthalocyanine for cyan colorant in photoimaging materials)

L18 ANSWER 71 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1985:141005 HCAPLUS

DOCUMENT NUMBER: 102:141005

TITLE: Optical recording materials

PATENT ASSIGNEE(S): TDK Corp., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 20 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59229396	A2	19841222	JP 1983-104397	1983 0610

PRIORITY APPLN. INFO.:

<--  
JP 1983-1043971983  
0610

AB Optical recording materials contain dye oligomers, in which  $\geq 2$  dye mols. are linked with each other via CO<sub>2</sub> or a polyvalent moiety having  $\geq 2$  CO<sub>2</sub> groups, as the light absorber. Thus, ester exchange reaction of 3,3'-bis(4-methoxycarbonylbutyl)-11-diphenylamino-10,12-ethylene-5,6,5',6'-dibenzothiatricarbocyanine perchlorate with 1,1'-bis(acetoxybutyl)-4,4'-tricarbo-cyanine perchlorate gave a oligomer. The oligomer was coated on a poly(Me methacrylate) support and treated with a Ti chelate to give a laser recording disk having excellent recording sensitivity and storage stability (after recording).

IT 95584-45-5

(laser recording materials containing)

RN 95584-45-5 HCAPLUS

CN Naphtho[2,3-d]thiazolium, 2-[2-[2-(diphenylamino)-3-[2-[3-(5-methoxy-5-oxopentyl)naphtho[2,3-d]thiazol-2(3H)-ylidene]ethylidene]-1,4-cyclopentadien-1-yl]ethenyl]-3-(5-methoxy-5-oxopentyl)-, perchlorate, polymer with 1,2-ethanediyl diacetate (9CI) (CA INDEX NAME)

CM 1

CRN 111-55-7

CMF C6 H10 O4

AcO-CH<sub>2</sub>-CH<sub>2</sub>-OAc

CM 2

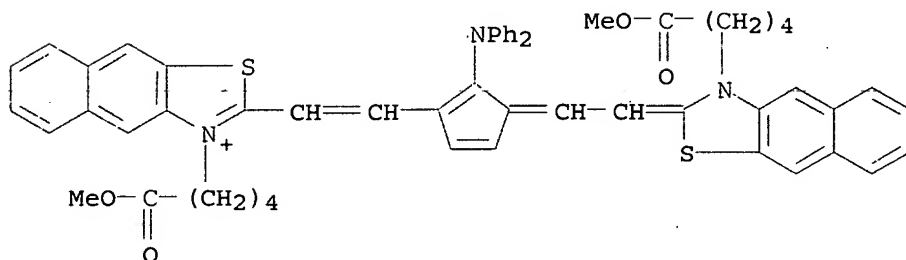
CRN 95584-44-4

CMF C55 H50 N3 O4 S2 . Cl O4

CM 3

CRN 95584-43-3

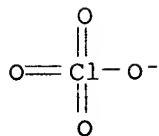
CMF C55 H50 N3 O4 S2



CM 4

CRN 14797-73-0

CMF Cl O4



IC ICM B41M005-26

ICS C08L045-02; C09B069-10; G11B007-24

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 95582-28-8 95582-31-3 95584-45-5 95584-48-8

95584-51-3 95608-54-1 95609-00-0  
 95609-01-1 95630-46-9  
 (laser recording materials containing)

L18 ANSWER 72 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 1985:87746 HCAPLUS  
 DOCUMENT NUMBER: 102:87746  
 TITLE: Laser recording material  
 PATENT ASSIGNEE(S): TDK Corp., Japan  
 SOURCE: Jpn. Kokai Tokkyo Koho, 15 pp.  
 CODEN: JKXXAF  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59185694	A2	19841022	JP 1983-61235	1983 0407
			<--	
JP 04041057	B4	19920707	JP 1983-61235	1983 0407

PRIORITY APPLN. INFO.: <--

AB A laser recording material with improved storage stability at high temperature is obtained by forming on a substrate a recording layer comprised of a dye polymer or its composition (i.e., a homopolymer or copolymer containing >2 kinds of dyes or a dye and other components, e.g, Pb phthalocyanine-3,3'-dicarboxylic acid chloride-hexamethylenedicarboxylic acid chloride polymer). The above recording layer may also contain a transition metal chelate compound as a quencher.

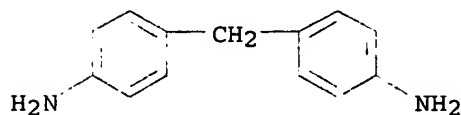
IT 94659-19-5  
 (laser recording materials containing)

RN 94659-19-5 HCAPLUS

CN Benzothiazolium, 3-(2-carboxyethyl)-2-[2-[3-[[3-(2-carboxyethyl)-5-chloro-2(3H)-benzothiazolyliidene]ethylidene]-2-(diphenylamino)-1,4-cyclopentadien-1-yl]ethenyl]-5-chloro-, perchlorate, polymer with 4,4'-methylenebis[benzenamine] (9CI) (CA INDEX NAME)

CM 1

CRN 101-77-9  
 CMF C13 H14 N2



CM 2

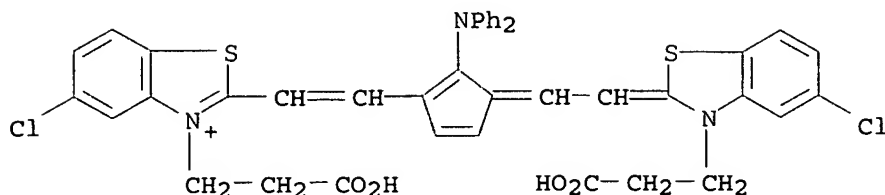
CRN 94659-18-4

CMF C41 H32 Cl2 N3 O4 S2 . Cl O4

CM 3

CRN 94659-17-3

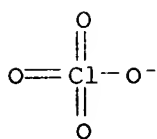
CMF C41 H32 Cl2 N3 O4 S2



CM 4

CRN 14797-73-0

CMF Cl O4



IC B41M005-26; G11B007-24

CC 74-12 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

IT 9011-14-7 25014-31-7 94642-42-9 94642-44-1 94658-59-0  
 94659-16-2 94659-19-5 97428-30-3 97428-30-3  
 (laser recording materials containing)

L18 ANSWER 73 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1984:148493 HCAPLUS

DOCUMENT NUMBER: 100:148493

TITLE: Electrically photosensitive polymers  
 containing vinylene-1,4-phenylene-imino-1,4-  
 phenylene-vinylenearylene groups

INVENTOR(S): Corvan, Peter J.; Kaeding, Jeanne E.;  
 Rodriguez, Cesar; Rule, Norman G.

PATENT ASSIGNEE(S): Eastman Kodak Co., USA

SOURCE: U.S., 9 pp.  
 CODEN: USXXAM

DOCUMENT TYPE: Patent  
 LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

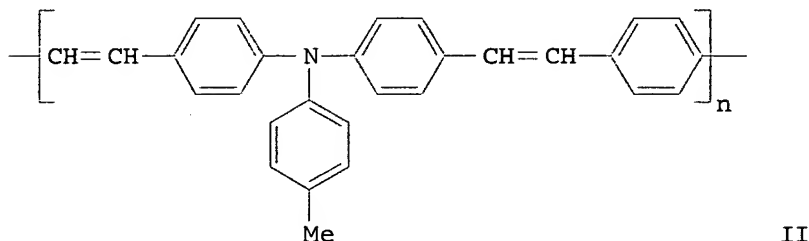
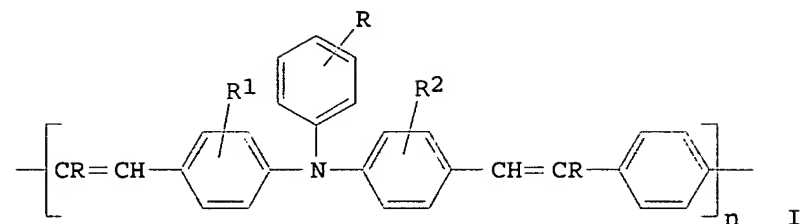
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4423203	A	19831227	US 1982-409800	1982 0820

PRIORITY APPLN. INFO.:

<--  
US 1982-4098001982  
0820

&lt;--

GI



AB A polymer is described which is useful for migration imaging. The polymer, which can constitute a principal elec. photosensitive component in migrating particles or serve as a sensitizer for an elec. photosensitive colorant having  $\geq 1$  major absorption peak in the 400-500 nm region, comprises recurring units of the formula I (R = H, CN, C1-5 alkyl, C1-5 alkoxy, halo, C6-10 aryloxy, COR3, CO2R; R1, R2 = H, CN, C1-5 alkyl, C1-5 alkoxy, halo, aryloxy, COR3, CO2R4, or R1R2 together represent a covalent bond; R3, R4 = C1-5 alkyl, C6-10 aryl; n = 10-30). Thus, the polymer II was dissolved in CH2Cl2, precipitated in Isopar G, the resultant particles isolated and centrifuged, and then redispersed with steel balls in Isopar G with poly(vinyltoluene-lauryl methacrylate-Li methacrylate-methacrylic acid) as the charge-control agent to form a migration imaging dispersion containing Isopar G 24, II 1, and charge-control agent 1 g. The thus obtained dispersion was coated on a conductive film support, and then subjected to a migration imaging process to give a neg. image with Dmax = 2.15 and Dmin = 0.08.

IT 89140-84-1

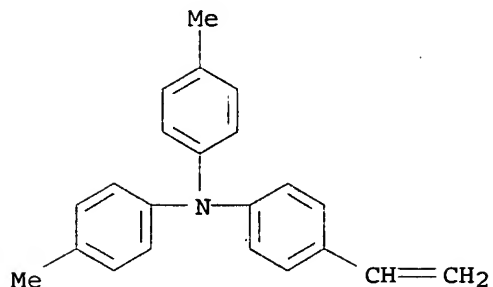
(charge-control agent, for migration imaging dispersion containing elec. photosensitive polymer with vinylene-phenylene-aminophenyl-vinylene-arylene groups)

RN 89140-84-1 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, polymer with dodecyl 2-methyl-2-propenoate, 4-ethenyl-N,N-bis(4-methylphenyl)benzenamine and lithium 2-methyl-2-propenoate (9CI)  
(CA INDEX NAME)

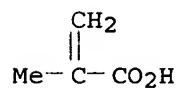
CM 1

CRN 74065-48-8  
CMF C22 H21 N



CM 2

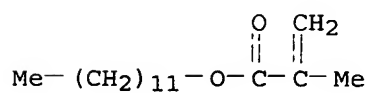
CRN 13234-23-6  
CMF C4 H6 O2 . Li



● Li

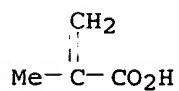
CM 3

CRN 142-90-5  
CMF C16 H30 O2



CM 4

CRN 79-41-4  
CMF C4 H6 O2



IC C08G012-04  
INCL 528266000  
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and



Other Reprographic Processes)  
 IT 62576-76-5 89118-68-3 89140-84-1  
 (charge-control agent, for migration imaging dispersion containing  
 elec. photosensitive polymer with vinylene-phenylene-aminophenyl-  
 vinylene-arylene groups)

L18 ANSWER 74 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1982:605776 HCAPLUS

DOCUMENT NUMBER: 97:205776

TITLE: Electrically photosensitive materials and  
 elements for photoelectrophoretic imaging

INVENTOR(S): Isaacson, Henry Verschay; Wright, Beth George;  
 Wright, Hal Eldon

PATENT ASSIGNEE(S): Eastman Kodak Co., USA

SOURCE: Eur. Pat. Appl., 45 pp.

CODEN: EPXXDW

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 52513	A2	19820526	EP 1981-305432	1981 1117
EP 52513	A3	19820609	<--	
R: DE, FR, GB US 4331751	A	19820525	US 1980-207114	1980 1117
JP 57116376	A2	19820720	JP 1981-183192	1981 1117
PRIORITY APPLN. INFO.:			US 1980-207114	A 1980 1117
			<--	

GI

\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT

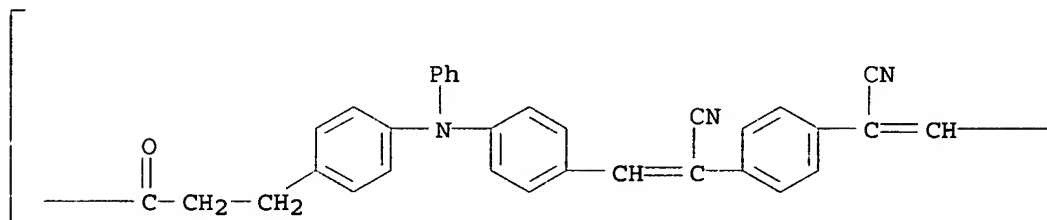
\*

AB Elec. photosensitive compns. for use in photoelectrophoretic  
 imaging process contain an elec. photosensitive polymer of the  
 formula I (R, R3 = C1-18 alkyl or aryl; R1, R2 = H or an  
 electron-withdrawing group; Z = arylene; Z1, Z2 = alkylene or  
 arylene; Z3, Z4 = oxy, imino, thio, carbonyloxy, oxycarbonyl,  
 iminocarbonyl, carbonyldioxy, arylene, carbonyloxycarbonyl,  
 sulfonyl, and the like; a, d = 0 or 1; b, c = 1-25; n ≥ 2).  
 Thus, an elec. sensitive composition was prepared by ball-milling Cyan  
 Blue GTNF in a CH2Cl2 solution of II with 1/8 in. stainless steel  
 balls for 5 days. The pigment to polymer ratio was 1/0.5 by weight

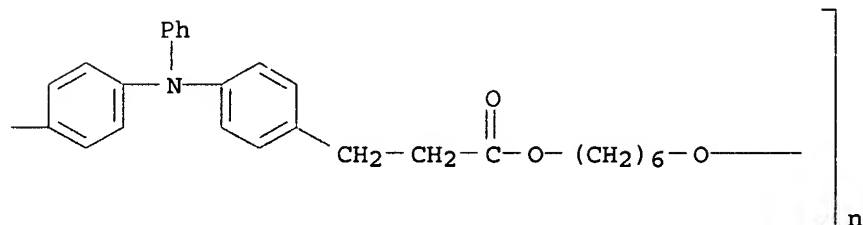
The dispersion was then precipitated by pouring into Isopar G, the elec. photosensitive composite particles isolated by centrifuging, and the precipitate then redispersed with lauryl methacrylate-Li methacrylate-methacrylic acid-vinyltoluene copolymer in isopar at a pigment to polymer ratio of 1/0.5 by weight. The resulting dispersion showed a relative sensitivity to a red filtered white light exposure of 640 for a pos. image and 580 for a neg. image vs. 100 and 100, resp., for a II-free control.

IT 64815-66-3  
(elec. photosensitive compns. containing, for electrophoretic imaging)  
RN 64815-66-3 HCAPLUS  
CN Poly[oxy-1,6-hexanediyl oxy(1-oxo-1,3-propanediyl)-1,4-phenylene(phenylimino)-1,4-phenylene(2-cyano-1,2-ethenediyl)-1,4-phenylene(1-cyano-1,2-ethenediyl)-1,4-phenylene(phenylimino)-1,4-phenylene(3-oxo-1,3-propanediyl)] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



IC G03G017-04  
CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)  
IT 64815-66-3 64815-67-4 64815-70-9  
64815-72-1 64819-21-2 64844-92-4  
68135-75-1 68135-76-2 83210-98-4  
83210-99-5 83211-01-2 83211-02-3 83211-05-6  
83211-06-7 83211-07-8 83211-08-9 83211-09-0  
83214-97-5 83214-98-6 83251-80-3  
(elec. photosensitive compns. containing, for electrophoretic imaging)

L18 ANSWER 75 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 1981:433460 HCAPLUS  
DOCUMENT NUMBER: 95:33460  
TITLE: Electrically photosensitive particles for electrophoretic migration imaging processes,

dispersions of these particles and processes  
using such dispersions

INVENTOR(S): Merrill, Stewart Henry; Turnblom, Ernest  
Wayne; Stahly, Frederick August; Wright, Beth  
George; Wright, Hal Eldon

PATENT ASSIGNEE(S): Eastman Kodak Co., USA

SOURCE: Eur. Pat. Appl., 68 pp.  
CODEN: EPXXDW

DOCUMENT TYPE: Patent

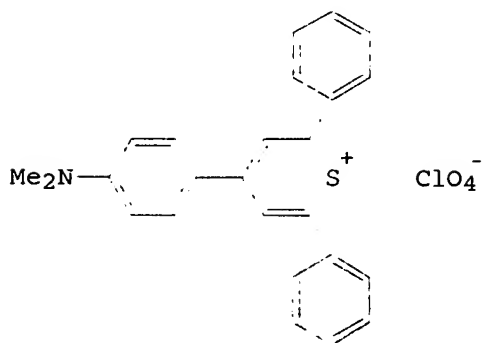
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO. -----	KIND ----	DATE -----	APPLICATION NO. -----	DATE
EP 24169	A2	19810225	EP 1980-302706	1980 0807
EP 24169 R: CH, DE, FR, GB	A3	19811125	<--	
US 4322487	A	19820330	US 1979-64972	1979 0808
CA 1143204	A1	19830322	CA 1980-357297	1980 0730
JP 56030159	A2	19810326	JP 1980-108369	1980 0808
PRIORITY APPLN. INFO.:			US 1979-64972	A 1979 0808
			<--	

GI



AB Elec. photosensitive dispersion for electrophoretic imaging consists of a colorant and a polymeric binder comprising units containing  $\geq 1$  structures of triarylamine, p-aminotetraarylmethane, 4,4'-bis(p-amino)triarylmethane,

1,1-bis(p-aminoaryl)isobutane, 1,1-bis(p-aminoaryl)cyclohexane, N-alkyl-N,N-diarylamines, N-alkenyl-N,N-diarylamines, N,N-diallyl-N-arylamines, and C3-12 heterocyclic containing  $\geq 1$  N atom in the ring structure. Thus, poly(di-p-tolylaminostyrene) 0.255 was mixed with a solution containing I 0.045, CH<sub>2</sub>Cl<sub>2</sub> 20 g, combined with Isopar G 225 mL, centrifuged, to give a precipitate (containing 15% of I), 0.26 g of which was milled 3 h with vinyltoluene-lauryl methacrylate-Li methacrylate-methacrylic acid polymer 0.26, Isopar G 4.65, and imaged in an imaging apparatus (Carousel projector with W lamp, imaging electrode 12.5-50 cm, voltage -1.5 kV) to give an image with Dmax and Dmin 1.42 and 0.08, resp., vs. 0.54 and 0.15 for a binder-free control.

IT 74065-50-2

(as binder, for photoelectrophoretic imaging dispersion containing dye).

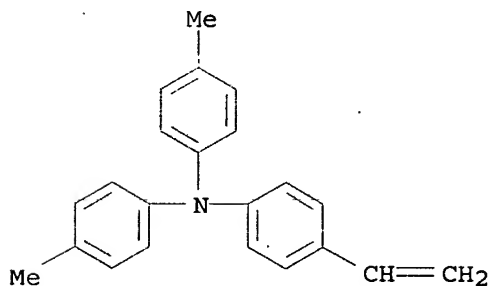
RN 74065-50-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, dodecyl ester, polymer with 4-ethenyl-N,N-bis(4-methylphenyl)benzenamine, 1-ethenyl-4-methylbenzene and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 74065-48-8

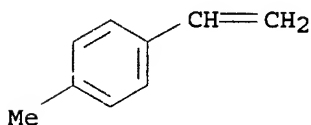
CMF C22 H21 N



CM 2

CRN 622-97-9

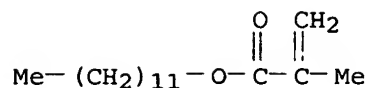
CMF C9 H10



CM 3

CRN 142-90-5

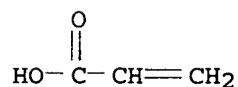
CMF C16 H30 O2



CM 4

CRN 79-10-7

CMF C3 H4 O2



IC G03G017-04

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic Processes)

IT 74065-49-9 74065-50-2 78099-29-3 78099-30-6

78099-31-7 78111-73-6

(as binder, for photoelectrophoretic imaging dispersion containing dye)

L18 ANSWER 76 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1980:434891 HCAPLUS

DOCUMENT NUMBER: 93:34891

TITLE: Composite electrically photosensitive particles

AUTHOR(S): Anon.

CORPORATE SOURCE: UK

SOURCE: Research Disclosure (1980), 190, 79-84 (No. 19014)

CODEN: RSDSBB; ISSN: 0374-4353

DOCUMENT TYPE: Journal; Patent

LANGUAGE: English

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
RD 190014		19800210		

PRIORITY APPLN. INFO.:

19800210

RD 1980-190014

AB Elec. photosensitive composites particles for use in the production of migration imaging dispersions are composed of a pigment, which may or may not be elec. photosensitive, and a polymer binder which contains repeating units derived from  $\geq 1$  compound selected from triarylamine or heterocyclic N compds. containing 4-10 C atoms. The imaging dispersions are prepared by admixing on a weight to weight basis up to .apprx.10 weight% of the elec. photosensitive composite particles, .apprx.1 to .apprx.10 weight % of a stabilizer or charge control agent, if desired, and .apprx.80 to .apprx.98 weight% of an elec. insulating carrier. Thus, a typical imaging dispersion was prepared by dissolving an elec. sensitive pigment 0.045 g in  $\text{CH}_2\text{Cl}_2$  20.0 g. Poly(di-p-tolyaminostyrene) binder (0.255 g) was then added to the solution followed with Isopar G 225 mL with rapid stirring. The resulting precipitate was then filtered off and air dried

over night. This precipitate 0.26 g was then combined with a solution of poly(vinyltoluene-lauryl methacrylate-Li methacrylate-methacrylic acid) 0.26 g as stabilizer in Iopar G 4.65 g and 0.318 cm type 440 stainless-steel balls 12 g. The mixture was milled for 3 h before imaging.

IT 74065-50-2

(elec. photosensitive particles containing, composite, for migration imaging dispersions)

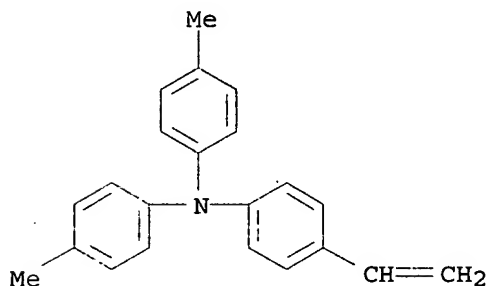
RN 74065-50-2 HCAPLUS

CN 2-Propenoic acid, 2-methyl-, dodecyl ester, polymer with 4-ethenyl-N,N-bis(4-methylphenyl)benzenamine, 1-ethenyl-4-methylbenzene and 2-propenoic acid (9CI) (CA INDEX NAME)

CM 1

CRN 74065-48-8

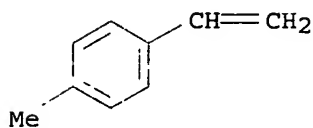
CMF C22 H21 N



CM 2

CRN 622-97-9

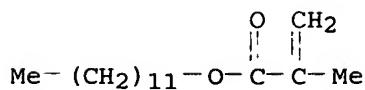
CMF C9 H10



CM 3

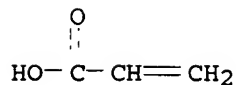
CRN 142-90-5

CMF C16 H30 O2



CM 4

CRN 79-10-7  
CMF C3 H4 O2



CC 74-1 (Radiation Chemistry, Photochemistry, and Photographic Processes)  
IT 6802-23-9 13586-34-0 14039-00-0 25656-58-0 25966-12-5  
27179-42-6 27179-43-7 27179-45-9 27910-75-4 65833-63-8  
74065-49-9 **74065-50-2** 74065-52-4 74065-54-6  
74065-56-8 74065-57-9 74065-58-0 74065-59-1 74065-60-4  
74065-61-5 74065-62-6 74070-78-3  
(elec. photosensitive particles containing, composite, for migration imaging dispersions)

L18 ANSWER 77 OF 78 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1979:31918 HCAPLUS  
DOCUMENT NUMBER: 90:31918  
TITLE: Multilayered photoconductive recording material  
INVENTOR(S): Wright, Hal Eldon; Berwick, Martin Alfred  
PATENT ASSIGNEE(S): Eastman Kodak Co., USA  
SOURCE: Ger. Offen., 54 pp.  
CODEN: GWXXBX  
DOCUMENT TYPE: **Patent**  
LANGUAGE: German  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2756858	A1	19780706	DE 1977-2756858	1977 1220
DE 2756858	C3	19800522	<--	
DE 2756858	B2	19790830		
US 4092162	A	19780530	US 1976-753389	1976 1222
CA 1101878	A1	19810526	CA 1977-291558	1977 1123
GB 1603663	A	19811125	GB 1977-53257	1977 1221
BE 862209	A1	19780622	BE 1977-183765	1977 1222
FR 2375273	A1	19780721	FR 1977-38731	1977

1222

&lt;--

FR 2375273  
JP 53087226B1 19810102  
A2 19780801

JP 1977-153696

1977

1222

&lt;--

JP 59028903  
AU 7731899B4 19840717  
A1 19790628

AU 1977-31899

1977

1222

&lt;--

AU 516923  
PRIORITY APPLN. INFO.:

B2 19810702

US 1976-753389

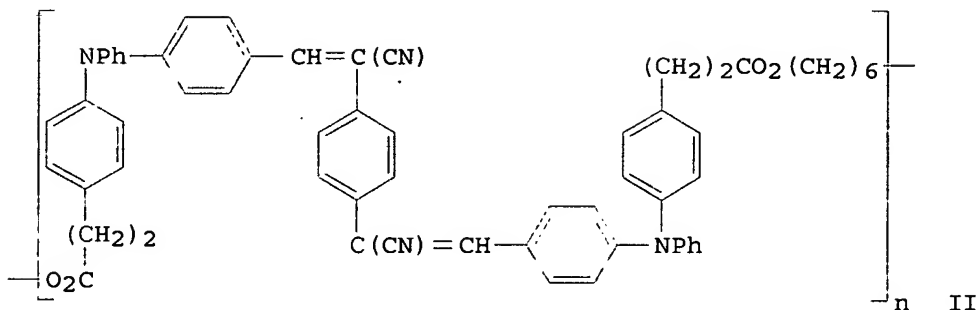
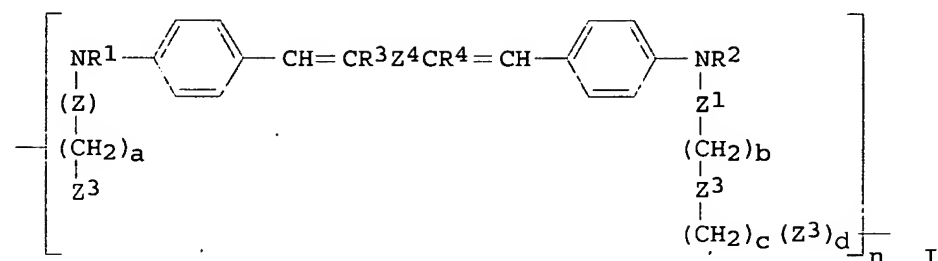
A

1976

1222

&lt;--

GI



AB Multilayered, electrophotog. recording materials with a high sensitivity for the blue region of the visible spectrum (.apprx.460 nm) contain a photocond. layer of the aggregate-type with a charge-injecting layer containing an elec. insulating polymer and a cocryst. complex of a pyrylium-type dye and a polymer with repeating alkylidenediarylene groups, I (R<sup>1</sup>, R<sup>2</sup> = C<sub>1</sub>-18 alkyl, aryl; R<sup>3</sup>, R<sup>4</sup> = H or an electron-withdrawing group; Z, Z<sup>1</sup> = C<sub>2</sub>-10 alkylene or arylene; Z<sup>3</sup> = O, NH, O<sub>2</sub>C, NHCO, carbonyldioxy, ureylene, carbonyloxycarbonyl, SO<sub>2</sub> NHSO<sub>2</sub>, NHCO<sub>2</sub>; Z<sup>4</sup> = arylene; a, b, and c = 1-25; d = 0 or 1), and a charge-transporting layer containing an organic or inorg. photoconductor. Thus, a multilayered, electrophotog. material with a charge-injecting layer containing a high-mol.-weight Bisphenol A polycarbonate 3.26, 4-(4-



IT 64815-66-3 (electrophotog. multilayer photoconductors with charge-injecting layer containing)

CN Poly[oxy-1,6-hexanediyl-oxy(1-oxo-1,3-propanediyl)-1,4-phenylene(phenylimino)-1,4-phenylene(2-cyano-1,2-ethenediyl)-1,4-phenylene(1-cyano-1,2-ethenediyl)-1,4-phenylene(phenylimino)-1,4-phenylene(3-oxo-1,3-propanediyl)] (9CI) (CA INDEX NAME)

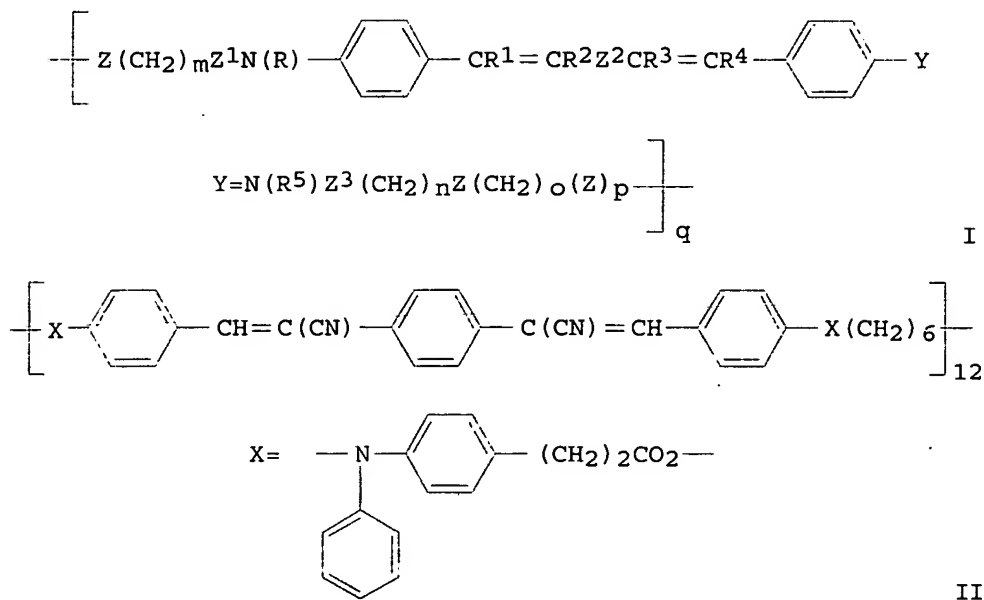
\*C(=O)CCc1ccc(cc1)N(c2ccc(cc2)C=C(c3ccc(cc3)C#N)C#N)c4ccccc4\*c1ccc(cc1)N(c2ccc(cc2)CC(=O)OCCCCCO\*)c3ccccc3

USHA SHRESTHA EIC 1700 REM 4B28

DOCUMENT NUMBER: 88:14266  
 TITLE: Novel compounds having utility in photoconductive elements  
 AUTHOR(S): Wright, Hal Eldon; Berwick, Martin Alfred  
 CORPORATE SOURCE: UK  
 SOURCE: Research Disclosure (1977), 158, 23-31 (No. 15827)  
 CODEN: RSDSBB; ISSN: 0374-4353  
 DOCUMENT TYPE: Journal; Patent  
 LANGUAGE: English  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	----	-----	-----	-----
RD 158027		19770610		
PRIORITY APPLN. INFO.: 19770610			RD 1977-158027	

GI



AB The polymeric compds. of general formula I (R, R<sup>5</sup> = aryl, C1-18 alkyl; R<sup>1-4</sup> = H, electron withdrawing group; Z = oxy, imino, thio, oxycarbonyl, iminocarbonyl, carbonyldioxy, ureylene, carbonyloxycarbonyl, sulfonyl, iminosulfonyl, iminocarbonyloxy; Z<sup>1</sup>, Z<sup>3</sup> = arylene, C2-10 alkylene; Z<sup>2</sup> = arylene; m, n, o = 1-25; p = 0.1; q ≥ 2) are incorporated into the aggregate photoconductive layers of electrophotog. materials for improved photosensitivity. Thus, an electrophotog. material was prepared by coating a conductive support with a photoconductive layer using a solution comprised of 4-(4-dimethylaminophenyl)-2,6-diphenylthiapyrylium hexafluorophosphate 1.59, a Bisphenol A polycarbonate 3.26, II 0.84, CH<sub>2</sub>Cl<sub>2</sub> 171.6, and 1,1,2-trichloroethane 73.5 g and a charge-transport layer using a

solution comprised of a Bisphenol A polycarbonate 8.6, Lexan 145 77.8, tri-p-tolylamine 38.2, 1,1-bis(di-p-tolylaminophenyl)cyclohexane 19.4, and  $\text{CHCl}_3$  1056 g, charged to -500 V, and exposed to 460 nm light to give a relative photosensitivity of 4.2 vs. 1.0 for a control using tri-p-tolylamine in the place of II.

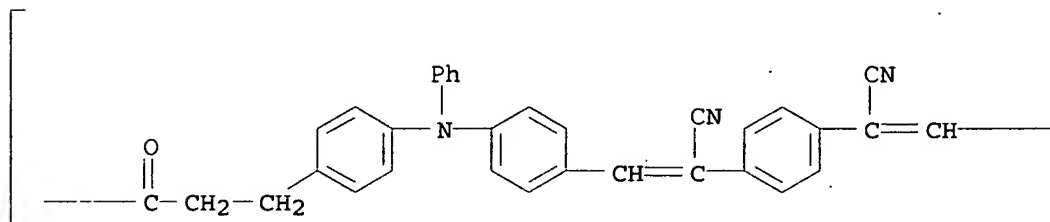
IT 64815-66-3

(electrophotog. sensitizer, for organic photoconductive compns.)

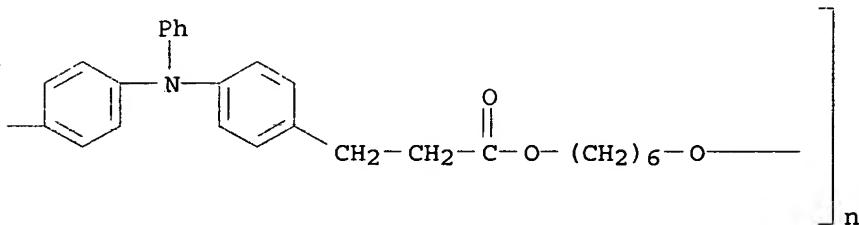
RN 64815-66-3 HCAPLUS

CN Poly[oxy-1,6-hexanediyl-oxy(1-oxo-1,3-propanediyl)-1,4-phenylene(phenylimino)-1,4-phenylene(2-cyano-1,2-ethenediyl)-1,4-phenylene(1-cyano-1,2-ethenediyl)-1,4-phenylene(phenylimino)-1,4-phenylene(3-oxo-1,3-propanediyl)] (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B



CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic Processes)

IT 64815-66-3 64815-67-4 64815-68-5

64815-69-6 64815-70-9 64815-71-0

64815-72-1 64815-73-2 64815-74-3 64819-15-4

64819-17-6 64819-19-8 64819-21-2

64819-23-4 64819-24-5 64819-25-6

64819-26-7 64819-27-8 64844-90-2

64844-92-4 64853-21-0 64853-22-1

64853-23-2 65294-99-7

(electrophotog. sensitizer, for organic photoconductive compns.)